

PERSONALITY

An Interdisciplinary Approach

THORPE—SCHMULLER

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by

LOUIS P. THORPE

*Professor of Education and Psychology
University of Southern California*

AND

ALLEN M. SCHMULLER

*Formerly Assistant Professor of Education
Los Angeles State College*



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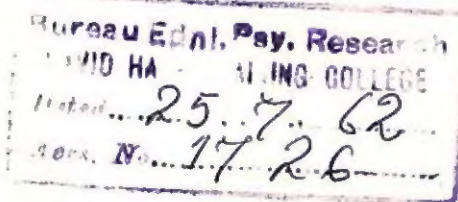
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Preface

THE TEXT which follows these introductory lines makes no pretense at covering the entire field of personality. Such an accomplishment seems destined to come about far in the future. However, this work, which is based largely on recent considerations, was written in the belief that there is needed as broad a coverage of the problem of personality as is now possible. It has been the belief of the authors for some time that such a book, prepared in organized and readable style, should be made available to students and others interested in this significant subject.

Personality: An Interdisciplinary Approach has been written as a text for college and university courses entitled personality, development of personality, dynamics of personality, and the like. It contains much material which would be useful as well in courses in mental hygiene, child psychology and development, and educational psychology.

To treat so vast a subject as personality—with its almost limitless aspects—is not conducive to brevity nor terseness in style of presentation. Any writer, it is felt, should in such a treatment make some effort to include as much relevant evidence based on research as is possible, inadequate though this material at times may appear to be. Throughout this work an effort has been made to form a coherent pattern which will not overtax the reader's patience or understanding.

One cannot, in these days of nuclear fission, ignore the impact of threats to personality integrity. Nor is there any need to do so. The objective throughout this presentation has been to indicate what evidence exists concerning preservation of the "normal" personality. Thus attention has been given to various of the factors which condition the development of what might well be called healthy personality.

The ages-old struggle against the ignorance and ideas which surround the problem of personality has been aided in no small measure by science. Perhaps the authors have been unduly prolix with respect to the value of science. But it is science that has made the

study of personality possible. It thus seems only fitting that acknowledgment of this fact be made, always keeping in mind that further research is needed.

A *patterned eclecticism* has served as the rationale for the present work. Such a view approaches the problem of personality from a broad base. Eclecticism, as the interlocking in an integrated way of that which is considered best in competing systems, is a time-honored procedure. It may, however, prove a two-edged weapon, convenient though it at first appears to be. There is neither point nor value in the joining together of two opposing systems regarding personality merely for the sake of harmony. Systems are built upon certain definite principles, principles which cannot be ignored with impunity. Thus the plan has been to emphasize the important differences which have arisen among the several students of personality and then to ascertain whether some defensible design could be derived from them.

A word should be added here concerning the inclusion of historical material relating to the nature and organization of personality. It is highly unlikely that an examination of today's theories of personality—significant though these may be in their own right—can be effective without an understanding of their origins. Philosophy is the parent of psychology, a fact which is implied in research concerning personality. For personality is an ancient and still difficult problem, beleaguered by the mythologies of history. It is only reasonable to assume that as much of the history as can be explored will help our understanding of the problem as it obtains today.

The aim of the present work frankly has been pragmatic. The authors have asked themselves the question, Will the data presented be of some practical value? Personality, it should be evident, is part of the larger problem which makes up the lives of all members of a still young democratic society. With an interdisciplinary point of view as their guide and human need as the yardstick, students of personality hope to carry to completion their interesting work.

Many people inevitably contribute to any text. The present authors' thanks go to all of these. The inadequacies in this book—may these be few and not too confusing—are, however, of their making.

LOUIS P. THORPE
ALLEN M. SCHMULLER

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PART ONE

Introduction

1

The Study of Personality

IN PAST eras and societies in which there was little regard for the individual, concern with personality was naturally submerged. Recent human problems and more democratic governments have produced an increasing interest in the individual and his role in society. The present trend is to regard the individual himself as a major focus of interest. This emphasis on individuality has brought with it a need for a clear understanding of the nature of personality.

Defining personality is difficult, because the concept has been so widely used in unscientific settings (and is thus impeded by an accumulation of past and present prejudices and superstitions) and because the scientific data are insufficient to yield a satisfactory definition. Inadequacies of recent research concerning personality have resulted from too narrow views of the concept. Some psychologists have endeavored to study personality primarily in terms of the environment; others have concentrated their efforts on determining the biological basis of personality. Some have viewed these factors in combination, but too few have realized that the study of human personality involves the life process itself—a consideration which calls for a broad and comprehensive approach.

An adequate definition of personality needs to emphasize the point that the individual is a human being *enmeshed in a social order*—and symbolic culture—which influences his every action. Although positions regarding the nature of personality vary from theorist to theorist, few students of the subject would deny that personality should be considered *a unified process* rather than a mere expression of the individual. The definition of personality found in the Fact-

Finding Report of the Midcentury White House Conference on Children and Adults appears to be especially congruent with this position. Personality is there described as "the thinking, feeling, acting human being, who, for the most part, conceives of himself as an individual separate from other individuals and objects. The human being does not *have* a personality; he *is* a personality."¹

An investigation of an individual's personality (psychological characteristics) must include an investigation of his home, his interests,

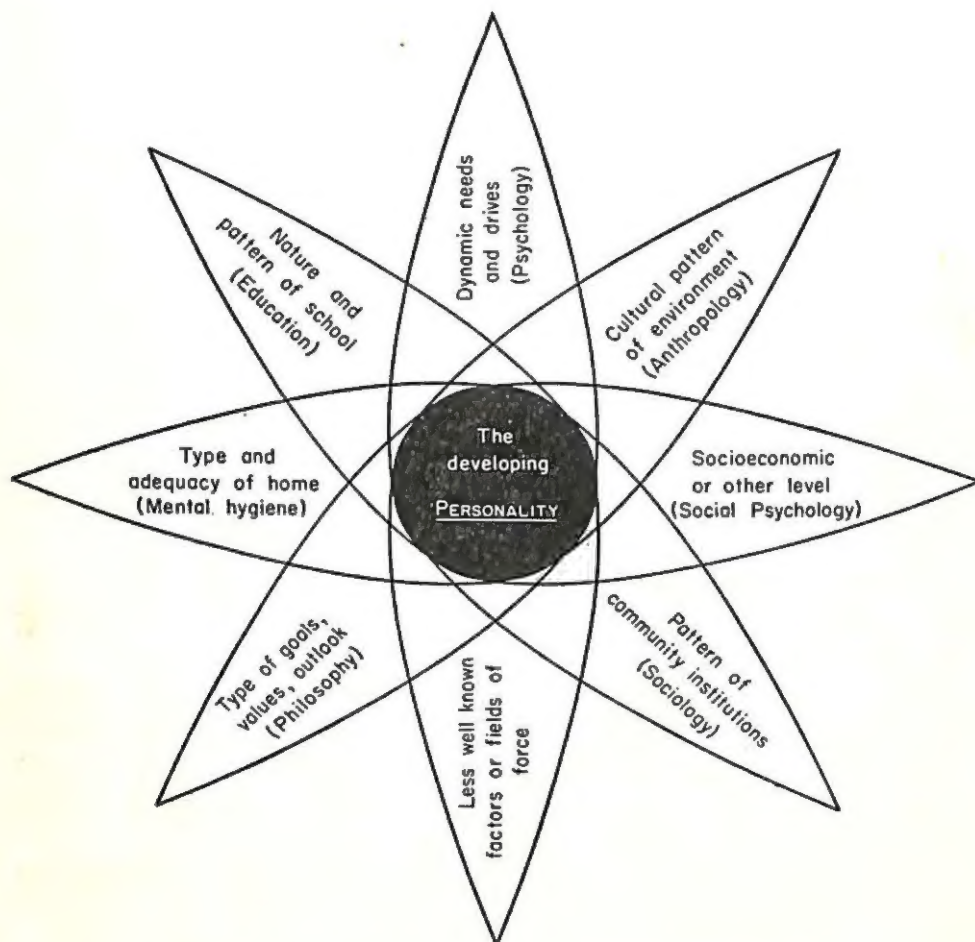


FIG. 1. THE INTERLOCKED DISCIPLINES (FIELDS OF FORCE) APPARENTLY RESPONSIBLE FOR THE FORMATION OF PERSONALITY.

¹ H. L. Witmer and R. Kotinsky (Eds.), *Personality in the Making*, New York: Harper & Brothers, 1950, p. 3.

his attitudes, and his personal involvements. Problems of personality pervade all aspects of society. Unless these components are integrated, we shall continue to struggle with partial views of personality and never really understand its nature. Every aspect of personality has significant implications for all other aspects; any one, taken alone is virtually meaningless. We must combine the findings of the different disciplines—psychology, sociology, cultural anthropology, education—so that they provide a total or holistic picture.

POPULAR CONFLICTING VIEWS

Two conflicting and popular views of personality are the mask and the adjustment concepts.

THE MASK CONCEPT

The word "personality" has been derived from the Latin *persona*, "mask," a term akin to the verb *personare*, "to speak through," and referring to speaking through the mask worn by an actor on the stage. Both Greek and Roman drama employed masks extensively, a theatrical stratagem which made it possible for spectators to distinguish the characters at a distance. Personality was thought of as precisely what the mask of the actor implied, a cover for the "real" person behind it.

One of the strongest influences in the preservation of the concept of personality as a mask was the philosophy of Plato. Plato's views represent the clearest expression of idealistic philosophy, a philosophy which still is very much in evidence and should not be underestimated in any consideration of the problem of personality. Some scholars still believe that personality is a mere façade for some "substance" presumably underlying it. Psychoanalysis is anchored in the belief that the ego represents the real individual and that conformity to social customs and laws covers this ego with layers of apparently protective behavior.

PERSONALITY AS ADJUSTMENT

One of the major contemporary views of personality is that it is molded by the individual's efforts to meet the demands of daily living. Thus a personality is considered to be maladjusted when

the individual is unable to adapt to the requirements of the cultural group of which he is a member. In contrast to those who hold the mask view of personality, the advocates of this view see behavior as the actual personality. In short, the sum of the individual's movements as he adapts himself to the environment is personality, or is all that can be known about the subject. Instead of being a thing in itself, personality becomes a consensus of what can be observed about the actions of a human being.

Psychologists who favor the adjustment view consider the data of personality to be valid only to the extent that they emerge from behavior itself. Professor Clark L. Hull, for example, makes no distinction between a theory of behavior and a theory of personality.

Evaluating the different theories about personality is a major concern of this book. Three problems involved in making such an evaluation are (1) outlining the major features of a particular theory without interfering with the basic thesis of its proponents, (2) finding standards by which conflicting theories can be compared, and (3) for one who holds an eclectic view, building a framework of principles concerning which there is mutual agreement.

A SEARCH FOR AGREEMENT

Much of the controversy which obscures the nature of personality is occasioned by a lack of agreement regarding basic features. It seems reasonable to expect that an adequate concept of personality can be formed from features of the various existing theories, especially if they are combined into a pattern sufficiently flexible for practical use. This volume attempts to present a picture of personality which might be called *patterned eclecticism*. One of the authors' goals is the ferreting out of features which are common to the several schools of personality. Heidbreder, for one, has seen that there are such areas of agreement. In her *Seven Psychologies*, she wrote:

There is more in psychology than systems, more even than scattered facts. Running through its factual content, even as seen through the eyes of rival systems, are converging lines of evidence that point to the same conclusions. The most impressive are those marked out by workers who, starting from very different theoretical bases, meet on common ground in the discovery of common facts—or rather, of facts that call for a common interpretation. There is nothing in psy-

chology more promising than the trends of agreement in independent pieces of research that different systems have inspired, trends which may be the beginnings of a solid groundwork on which a factual science of psychology will be founded.²

The chapters to follow will indicate the extent to which theoretical views of personality vary among themselves and in some instances even within themselves. Although considerable disagreement exists, the fact that there is some degree of consensus is a hopeful indication of possible future progress.

SCIENCE AND THE STUDY OF PERSONALITY

A hopeful sign is the recently developed fund of experimental data regarding the nature of personality. This has opened the way to insight hardly considered possible even a few years ago. Not the least of the advantages of having this collection of empirical data is the dispelling of some common but false assumptions concerning personality.

THE METHOD OF SCIENCE

With the advent of the scientific method, the study of personality received a new and powerful impetus. To points of view on personality dominated by dogma and opinion, the scientific method brought an objective and quantitative approach. The unscientific investigator tends to favor his own a priori views; that is, he searches for such facts as will bolster his original opinions. The scientific investigator presents his materials as impartial evidence.

The soundness of any theory depends upon the methods used to supply the data on which the theory is based. In general, research concerning personality has progressed from naive, subjective, and unverified approaches to the more precise and impartial methods of the natural sciences. Pearson described the method as follows:

Now this is the peculiarity of scientific method, that when once it has become a habit of mind, that mind converts *all* facts whatsoever into science. The field of science is unlimited; its material is endless, every group of natural phenomena, every phase of social life,

² Edna Heidbreder, *Seven Psychologies*, New York: Appleton-Century-Crofts, Inc., 1933, p. 414.

every stage of past or present development is material for science. *The unity of all science consists alone in its method, not in its material.* The man who classifies facts of any kind whatever, who sees their mutual relation and describes their sequences, is applying the scientific method and is a man of science.³

In an effort to insure the general validity of its observations, science has established certain controls. First, the scientist endeavors to rid himself of personal bias. He does not proselytize, neither does he defend a viewpoint which is not fully substantiated by such facts as can be agreed upon. Scientific analysis is precise and exacting. It employs the most accurate instruments it is possible to secure, and is based upon a foundation of statistical verification and controlled experimental procedures. The data are gathered in an organized procedure: facts are collected in accordance with a tentative hypothesis, which itself is subject to verification or disproof. Instead of being isolated, facts come to have a relationship to other facts and to the hypothesis which has led to their observation. Finally, the facts are verified by an experiment which can be repeated with equivalent results by another investigator working under like circumstances.

TECHNIQUES IN STUDYING PERSONALITY

Objectively designed tests and inventories have made it possible for a subject, through his own replies, to reveal certain of his "inner" feelings and attitudes. Projective devices have been constructed for the specific purpose of penetrating the "outer layers" of behavior, induced by conformity to the folkways and mores of society, and assessing latent as well as covert aspects of personality. Case studies conducted by trained investigators have brought together much relevant information concerning individual personality patterns. All of these techniques constitute the means by which the most complete objective information concerning a given individual is gathered.

Largely because of such developments as these, the scientific method of inquiry has made possible a broader and more thoroughly objective point of view regarding the nature and development of personality. The basis of personality is no longer assumed to be "innately" formed and unmodifiable. Tests have shown that per-

³ Karl Pearson, *The Grammar of Science*, London: Adam & Charles Black, Ltd., 1911, p. 12.

sonality is subject to change and that certain experiences can do much to bring about particular types of personality patterns.

There is general agreement today that personality formation is most effectively studied in its primary setting, which includes the society in which the individual is reared.

THE NEED FOR CAUTION

It should perhaps be pointed out that science, although the most effective method yet devised for exploring both the physical world and man, still is primarily a method and not an absolute answer to questions relating to personality. Theories concerning the nature of personality, like other theories in the social sciences, cannot be regarded as wholly objective constructions. Although the scientist attempts to be impartial and unemotional, human beings by virtue of their fallible senses are always involved in the interpretation of that which is being measured. Furthermore, as Guilford cautions us, "Every measurement that we make is, in a sense, an error, for it deviates from the true value that we want to find, and it deviates even from the average. Only in very rare cases does any one measurement actually coincide with the average. *And whether or not the average itself even coincides with the true value, we can never know.*"⁴

Still another flaw in scientific procedure which some students of personality have noted is its apparent slighting of the individual. It must be admitted that science is concerned with the establishment of general principles based upon a representative number of specific instances or individuals. For example, certain writers on the subject hold that objective testing has resulted in too great emphasis on norms, figures which they maintain do not apply accurately to any given individuals. Gordon Allport, a leader in the field of personality study, takes issue with the method of science so far as concern for the individual is involved. He writes as follows:

Why is it that science and common sense part company over the fact of human individuality? The answer is that science is an arbitrary creed. It defines itself as a systematic attempt to trace order in nature through the discovery of regularities and uninformative *characteristics of a whole class* of objects. By choice, therefore, scientists have preoccupied themselves with generalized truth, with occur-

⁴ J. P. Guilford, *Psychometric Methods*, New York: McGraw-Hill Book Company, Inc., 1936, p. 23. Italics are the author's.

rences that are common to events of one class. A "class," to be sure, is a question-begging concept, for it in turn is an abstraction designed to cover common occurrences. So it turns out that the "order in nature" which the scientist seeks is after all quite a circular matter."⁵

Allport, among others, proposes to meet the weakness which he imputes to science. There is, of course, great need for examining the dimensions of personality which characterize the uniqueness of a given person. Individual differences are the basis of personality study but, as Kluckhohn and Murray have declared in a recent authoritative text, ". . . for general scientific purposes the observation of uniformities, uniformities of elements and uniformities of patterns, is of first importance. This is so because without the discovery of uniformities there can be no concepts, no classifications, no formulations, no principles, no laws; and without these no science can exist."⁶

In this volume we will review and evaluate some of the propositions on the foundations and determinants of personality in an attempt to discover the principles and laws governing personality formation and development, and point to the more fruitful lines of study designed to fill in the gaps in our knowledge.

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⁵ Gordon W. Allport, *Personality: A Psychological Interpretation*, New York: Henry Holt and Company, Inc., 1937, pp. 3-4.

⁶ Clyde Kluckhohn and Henry A. Murray (Eds.), *Personality: In Nature, Society, and Culture*, New York: Alfred A. Knopf, Inc., 1954, pp. 37-38.

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PART TWO

Foundations of Personality

2

The Biological Basis of Personality

UNTIL RECENTLY, studies of the nature of personality were limited to particular aspects of the individual. Most early investigations were concerned either with the psychological foundations of personality or with its biological basis. Although this mind-body controversy is still in evidence, much of the research now being done is shaped by a more integrated social-psychological approach. This change in method seems to have come with the realization that the whole, not parts, of the individual responds to the world about him.

That this holistic approach has led to major advances in our understanding of personality is spotlighted by recent findings on psychosomatic disorders. Researchers working on ulcers, for instance, have done much to show how psychological and organic states are inextricably related. They know that ulcers are caused by the release of excessive hydrochloric acid into the stomach, a condition which is often occasioned by emotional disturbances. Physicians now look for psychological and emotional problems when treating certain physical disorders, and students of personality look for their data in the physical, social, and emotional lives of individuals.

Although psychologists have done most of the work on the study of personality, educators, sociologists, cultural anthropologists, and students in still other areas have come to see that the study of personality can add much to their various funds of knowledge. Certainly these disciplines have much to offer to the understanding of personality, and the cooperative pooling of information and procedures of study will no doubt redound to the benefit of all.

GENETIC INFLUENCES ON PERSONALITY

The term *heredity* is popularly employed to describe the "innate" equipment of the individual at the time of conception. This inheritance is often contrasted with the developments which are said to emerge from contact with the environment. Conklin defined heredity as "the continuity from generation to generation of certain elements of germinal organization. Heritage is the sum of all those qualities which are determined or caused by this germinal organization."¹

In view of evidence showing that the existence of the organism itself depends upon the circumstances of uterine life, the distinction between heredity and environment is being minimized. Nature and nurture are increasingly being looked upon as but two interlocked aspects of the process of human growth and development. Francis Galton described the phrase "nature and nurture" as

. . . a jingle of words, for it separates under two distinct heads the innumerable elements of which personality is composed. Nature is all that a man brings with himself into the world; nurture is every influence from without that affects him after his birth . . . the one produces the infant such as it actually is . . . the other affords the environment amid which the growth takes place, by which natural tendencies may be strengthened or thwarted, or wholly new ones implanted.²

Modern psychologists endeavor to avoid any dualism here. Nature and nurture are treated as two phases of an integrated process and *are separated only for purposes of theoretical examination*. The two concepts have no separate entities, no isolated functions. This issue is crucial for psychology because history has made the heredity-environment dualism almost sacrosanct.

MENDEL'S GENETIC LAWS

Just how physical characteristics are transmitted remained a mystery until the beginning of the present century. The republication in 1900 of the work of the Augustinian monk J. Gregor Mendel clarified much speculation. At his monastery in Brunn, Moravia, Mendel carried out experiments with the common sweet pea and was able to arrive at principles that govern the inheritance of many charac-

¹ E. G. Conklin, *Heredity and Environment in the Development of Men*, Princeton, N. J.: Princeton University Press, 1922, p. 134.

² Francis Galton, *English Men of Science*, New York, 1874, p. 12.

teristics in animals and plants. He showed that the height, color, texture, and other "unit characters" of plants depend upon certain determining factors. (These were later identified as the genes in the germ cells of parent plants.)

Mendel cross-bred the sweet peas and kept careful records for many plant generations, detailing the ways in which each pea plant was like or unlike the parent plants. For instance, he crossed a tall-stemmed pea with a short-stemmed pea and found that the first filial generation (F_1) had no short-stemmed members at all. Yet when the members of this first generation were allowed to fertilize one another, a second generation (F_2) contained many short-stemmed plants—in fact, very nearly one short-stemmed for every three long-stemmed specimens. "Short-stemmedness," which had disappeared for a generation, came back. In a third generation, the results were even more interesting. The short-stemmed plants of F_2 , when interbred, produced nothing but short stems in F_3 . But when tall stem was bred with tall stem, only one-third produced all tall stems. The other two-thirds produced one short-stemmed plant for every three tall stems.

Out of these curious findings—now common knowledge and supported by repeated experiments in both the animal and vegetable kingdoms—Mendel drew up principles of inheritance that can be formulated as follows.

THE LAW OF SEGREGATION

Certain traits occur on an all-or-none basis. The child of a blue-eyed and a brown-eyed parent may have blue eyes or brown eyes, but he is not likely to have a blend of the two shades. Mendel's sweet peas were tall-stemmed or short-stemmed, and not midway. Over the generations, the matings of parents that show striking differences in such a trait as eye color do not produce a generation in which eye color is alike in all members and midway between blue and brown. The traits continue to hold their own, to *segregate*, generation after generation.

The explanation of this segregation is found in the processes of gene action. When two parent cells unite and reproduce, each cell (as will be described below) provides a gene that can determine, say, tallness or shortness of stem. If both genes favor the short stem, then the offspring will be short-stemmed. If both favor tall stems,

then the offspring will be tall. But if one gene is a determinant for tallness and the other for shortness, what trait will the offspring show?

THE LAW OF DOMINANT AND RECESSIVE TRAITS

In the case just mentioned, when one hereditary factor (or gene, to use the modern term) is a determinant of tallness and the other of shortness, the offspring does not turn out to be midway between tall and short, nor does it in fact turn out to be short. It is always tall-stemmed. The tall-stem gene always shows *dominance* in such a blend. The alternative, short-stemmedness, is said to be *recessive*. There are many characteristics for which dominant and recessive blends occur. One set of traits consistently supersedes the alternative set when the genes bearing the alternatives meet and initiate the process of reproduction. This principle is manifested in man and other animals as well as in plants. For instance, in human beings brown eyes are dominant over blue eyes and curly hair over straight hair. That is, when a germ cell bearing the gene for straight hair blends with a cell bearing the gene for curly hair, the recessive gene fails to determine the offspring. The dominant curly-hair gene prevails over the recessive straight-hair gene.

When the law of segregation of traits and the law of dominant and recessive traits are put side by side, it is not hard to see that the operation of the two principles produces out of a purely random mixture of genes precisely the numerical proportions of traits set forth in the earlier description of tall-stemmed and short-stemmed generations. In the first crossing of tall stems and short stems, the presence everywhere of at least one gene for tall stems guarantees that no short-stemmed member will turn up in F_1 , for the tall-stem genes are dominant, and the short-stem genes recessive. But in a large share of F_1 , the short-stem gene is lurking, and in the next generation, chance will in some cases bring two of these recessive genes together. The resulting short-stemmed offspring will have in its germ cells two short-stem genes, and so will always breed true when crossed with another short-stemmed plant; whereas the tall-stemmed plants, many of which contain both genes, will not all breed true. A certain proportion of them will always produce long-stemmed offspring, because their germ cells are not a combination but contain two long-stem genes.

In the long run of random breeding, the proportions will show a statistical picture—one-fourth true-breeding short-stems, one-fourth true-breeding long-stems, and one-half long stems that do not breed true but show a third short-stems and two-thirds long stems among their offspring.

THE LAW OF INDEPENDENT UNIT CHARACTERS

Mendel's third law grew out of his observation that a given "unit character" (physical characteristic) of garden peas is independent of other unit characters in that species of plant. Mendel discovered, for example, that the colored flowers growing on tall pea vines can be produced on short vines (which grow white flowers) by the process of cross-fertilization. This means, of course, that in the case of peas, color of flowers is independent of tallness and shortness of stem. Thus each unit character is inherited according to the first two laws as if no other character were present. The characters are sorted out in the course of generations to yield all possible combinations. (As will be shown below, this principle, like the others, requires some qualifications.)

The same three principles have been found to operate in man. The same ratios of inheritance as those resulting from the crossing of tall and short vines in peas appear in the reproduction of unit characters in humans. The related principles of *unit character independence* and *dominance of some unit characters over others* can be depended upon to appear where stocks of known genetic constitution are involved. As an example of this principle Morgan cites the inheritance of eye color in human beings:

Blue eyes mated to blue give only blues; brown eyes bred to brown give only brown, provided the browns have had only a brown ancestry. If a blue mates with a pure brown, the children are brown. If two individuals that have arisen from such parentage marry, their children will be brown- and blue-eyed in the ratio of 3 to 1.³

UNIT CHARACTERS AND THE GENES

The phenomenon of inheritance of unit characters has many implications. Even before Mendel's findings were known to scientists, it was believed by such prominent nineteenth-century investigators

³ T. H. Morgan, *The Theory of the Gene*, New Haven, Conn.: Yale University Press, 1926, p. 4.

as Darwin and Lamarck that the inheritance of parental characteristics was made possible by the actions of tiny somatic (body) particles called *ids* or *idants*. These men reasoned that inheritance must be a function of the orderly march of such minute body particles into the germ cells, where they presumably brought about the development of characteristic structures in resulting embryos.

When Mendel's experimental results were brought to light, they appeared to confirm the assumption that cell particles are responsible for the appearance in offspring of specific characteristics. It was evident that physical traits were transmitted in harmony with a mathematical principle of some kind, but the earlier biologists did not realize that germ cells can carry on without the aid of particles emanating from body cells. Later they learned that chromosomes and their gene equipment are the bearers of heredity.

These findings led to the belief that practically all human traits—mental, moral, temperamental, as well as physical—are passed on from parents to children through the avenue of genes. Scientists entered an era of more or less enthusiastic belief in the inheritance of human characteristics of all kinds. For a time but slight attention was paid to the fact that not only personal and social traits but physical structures as well are profoundly influenced in their development by events and pressures in the environment. The doctrines that the majority of human inadequacies and personality disorders are the result of tainted genes, and that society's principal hope for improvement lies in a long-term program of selective breeding came to be advocated by many writers.

THE CHROMOSOMES AND HEREDITY

Scientists now recognize that whatever characteristics are transmitted from parents to offspring must travel by way of the tiny germ plasm or sex cells. These minute agents apparently initiate whatever processes are responsible for the passing on of physical traits from one generation to another. When seen under the microscope, these tiny cells display a complicated nucleus of threadlike particles similar to irregular strings of minute beads. When stained with dyes, the nucleus becomes more conspicuous than the fatty substance, called cytoplasm, which surrounds it. Because of this response to staining, these strandlike particles have been called *chromosomes* ("color bodies").

Although species differ widely in the number of chromosomes, each species is characterized by a constant number. In the case of human beings, 24 pairs, or 48 chromosomes, are present in each of the body's cells. Half of these chromosomes are transmitted by the male parent and half by the female parent. The mechanisms of inheritance are controlled by the sex cells containing the chromosomes. So far as inheritance is concerned, they alone determine the physical characteristics which the future individual will possess. As Jennings put it: "The rules of distribution of the characteristics are the rules of distribution of the chromosomes."⁴

Morgan's study of the fruit fly (*Drosophila*) revealed that certain physical features in offspring are associated with the presence of given chromosomes.⁵ He further discovered that the sex cell of the female contains an even number of chromosomes—one more fully developed chromosome than the male cell possesses, in the sense that one male chromosome is small and somewhat underdeveloped. Morgan observed the extra or X chromosome in the female from generation to generation and learned that it is the determiner of sex. When a male sperm having an X chromosome (males carry sperm with and without the X) impregnates the female ovum (which always has an X chromosome), the offspring is female. A male individual is produced when a male sperm having no X chromosome (but only the diminutive y) fertilizes an ovum. Morgan also found that genes for a variety of physical characteristics are linked with the X chromosome or sex determinant.

THE REDUCTION PROCESS

Knowledge concerning the actions of sex cells and their chromosomal equipment makes it possible to understand the origin of the physical differences exhibited by offspring of the same parents. The behavior of these chromosomes as they become mature also suggests how the correct number of chromosomes for the species is maintained. The multiplication, or splitting, of the sex cells results in the equal division of chromosomes and in constant uniformity of chromosomal equipment. The process provides the organism with sufficient cells for later reproduction.

⁴ H. S. Jennings, *The Biological Basis of Human Nature*, New York: W. W. Norton and Company, Inc., 1930, p. 57.

⁵ T. H. Morgan, C. B. Bridges, and A. H. Sturtevant, "The Genetics of *Drosophila*," *Bibliographia Genetica*, 1925, 2:1-262.



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At some point prior to puberty, the chromosomes from paternal and maternal forebears (half from each parent) arrange themselves in the gonad cells in 24 pairs. Each pair grows and divides again. As the parent cell divides, 24 chromosomes gravitate to one cell and 24 to the other. These chromosomes go to separate cells in *chance combinations*. A given germ cell may then receive any one of hundreds of thousands of combinations of chromosomes. It thus is easy to understand why children of the same parents may differ markedly in their physical qualities.

GENE ACTION AND INHERITANCE

"The way diverse individuals develop, the peculiarities that they show, the so-called laws of heredity, the extraordinary resemblances and differences between parents and offspring, all these things depend largely on the arrangement and behavior of the genes."⁶ The physical characteristics exhibited by an individual are then the result of the combination of genes from which he developed. This biological fact is essential to an understanding of the physical aspects of personality.

An important phase of gene action is the fact that each parent provides the offspring with a complete set of 24 chromosomes, each with its appropriate "string" of genes. Since every human being has two parents, he or she receives two complete sets of chromosomes. In every cell of the body, these chromosomes arrange themselves in pairs in such a way that genes concerned with the same functions are stationed opposite each other. The child thus inherits two sets of gene-equipped chromosomes, each set capable of producing a complete organism.

Because each gene (actually a number of genes) in a pair is capable of performing its function in the formation of whatever structure is being developed without the assistance of its mate, human beings escape many physical defects and limitations implicit in their family trees. If one of a pair of genes is defective, its partner can perform the function which would normally be handled by both genes. The mechanism described holds for the development of eyes, ears, feet, skin, and other physical structures. To quote Jennings again,

⁶ H. S. Jennings, *op. cit.*, p. 3.

It appears that this insurance through doubling of the genes is the chief biological ground for our having two parents instead of one. Gene defects are so common that without this doubling—the two genes of each pair coming each from a different source—defective individuals would be far commoner than they are. Organisms reproducing from two parents have a great advantage in this respect over those reproducing from a single parent.⁷

The transmission of defective physical characteristics is the result of the pairing of paternal and maternal defective genes. Such an outcome may occur even when both parents are themselves normal in every observable respect, for many normal individuals carry defective genes in their sex cells.

Offspring may inherit qualities superior to those of their parents or they may be the recipients of inferior characteristics. In the case of the rapidly reproducing *Drosophila* fruit fly, these processes operate unerringly generation after generation.

A single gene cannot bring about the development of a complicated physical structure such as a foot, a hand, a pair of eyes, or a head of hair. Many genes interact and cooperate to produce any one of these or other structures. In the case of the fruit fly, approximately fifty pairs of genes are said to cooperate in the formation of the typical red eye color. One gene may, however, influence the development of a number of physical characteristics.

THE PHENOMENON OF BLENDING

Segregation of dominant and recessive traits sometimes fails to appear. The offspring of dissimilar parents in some cases inherit characteristics which are clearly intermediate. When long-eared rabbits are mated with rabbits possessing short ears, their offspring exhibit ears of medium length. Contrary to the usual outcome, these hybrid animals breed offspring resembling their intermediate parents; succeeding generations do not follow segregation and the usual 3:1 ratio between dominant and recessive traits.

Mulatto skin is another case of blending and one which occurs when "true Negro" and "true Caucasian" humans are crossed. Scientists have been puzzled over the relation between this phenomenon and Mendel's well-established law of segregation. Negroes probably

⁷ *Ibid.*, p. 9. See also L. H. Snyder, *The Principles of Heredity*, Boston: D. C. Heath and Company, 1946, pp. 356-366.

carry two pairs of genes for black pigmentation and whites carry no genes for that color; the mating then seems to produce an offspring characterized by half the amount of pigment transmitted by both parents combined.⁸

THE PHENOMENON OF LINKAGE

Some physical characteristics do not appear in the three-to-one ratio so common in the segregation of dominant and recessive traits, although these traits persist in patterns in later generations. The characteristics which stay together, the linked qualities, probably originate in the same chromosome, so that children inherit all of the characteristics resident (linked) in a given chromosome.

The best evidence for linkage is the consistent association of certain physical traits with sex. Hemophilia (bleeding), color blindness, muscular atrophy, and some forms of myopia and nystagmus are transmitted by an affected male through his daughters to his grandsons. Except for color blindness, only males are affected, and only females act as carriers of these defects. All offspring of a hemophilic father and a normal mother will be normal as far as blood clotting is concerned, but the daughters may transmit hemophilia to their sons, who in turn will be the fathers of normal children. This pattern is due to the action of paired genes. A normal sex-determiner gene (X), when paired with a defective X gene (from the father) will result in a normal blood condition. A defective X gene from the unaffected mother will produce hemophilia if coupled with a y gene from the father (who carries both X and y genes).

CROSSING OVER

In 1931, Stern, working on the *Drosophila* fly, and Creighton and McClintock, working on corn, established the fact that crossing over is brought about by an exchange of parts of paired chromosomes.⁹ All three investigators used "translocations" to carry out their experiments. Translocations, which are rare, occur when a part of one

⁸ E. W. Sinnott, L. C. Dunn, and T. Dobzhansky, *Principles of Genetics*, New York: McGraw-Hill Book Company, Inc., 1950, pp. 58-73.

⁹ Curt Stern, "Zytologisch-genetische Untersuchungen als Beweise für die Morgansche Theorie des Faktorenaustauschs," *Biologisches Zentralblatt*, 1931, 51:547-587; and H. B. Creighton and Barbara McClintock, "A Correlation of Cytological and Genetical Crossing-over in *Zea mays*," *Proceedings of the National Academy of Science*, 1931, 17:492-497.

chromosome breaks away and becomes attached to another, usually from a different pair. These studies demonstrated that the crossing over of a dominant or recessive factor is accompanied by chromosomal exchange and further established the hypothesis that chromosomes are the bearers of heredity.

Stern, for example, discovered a strain of *Drosophila* flies in which a portion of the Y chromosome had been detached and was adhering, through translocation, to the end of the X chromosome.¹⁰ This X chromosome (with the section of the Y attached to it) was easily identifiable under the microscope. Stern then crossed this strain with a strain of *Drosophila* flies in which one of the X chromosomes was broken in two. The results vindicated his original hypothesis that both heredity factors and cytological material were exchanged. This investigator thus was able to produce a female fly which had one of its X chromosomes carrying a piece of the Y and the other one broken in two. In addition, the dominant factor B, for bar eye, in which the eye becomes much narrowed, and the recessive factor C, for carnation eye, a color change, were seen as accompanying the chromosomal exchange in different ratios.

What Stern was able to accomplish with animals, Creighton and McClintock did with plants.¹¹ Using corn and involving a pair of chromosomes in which the two members could be told apart cytologically, they too demonstrated that whenever genetic crossing over takes place, a corresponding exchange of homologous parts occurs between members of the pair of chromosomes (evidently through some mutual attraction of the portions involved). Thus there is concrete evidence in support of the hypothesis that a physiological (cellular) basis for the phenomena of linkage and crossing over exists.

Crossing over has made possible work with mutations (sudden discontinuous changes) in hereditary material. H. J. Muller, a University of Indiana professor, was awarded the Nobel Prize in 1945 for his pioneering research in defining more clearly the process of mutation. Utilizing X rays and radium in his experiments, this investigator outlined a method by which the frequency of mutation in

¹⁰ A. Scheinfeld, *The New You and Heredity*, Philadelphia: J. B. Lippincott Company, 1950, pp. 78-86. See also C. B. Davenport and F. H. Danielson, *Heredity of Skin Color in Negro and White Crosses*, Carnegie Institute Publications, No. 188, 1913.

¹¹ H. B. Creighton and Barbara McClintock, *loc. cit.*

animals could be greatly increased.¹² Other scientists have found the same process in plants.

Recent experiments have also shown that mutations may be artificially induced in a great variety of organisms, including bacteria and other fungi, by chemical treatment, by changes in temperature, by radiation, and by other physical changes.¹³

Such artificially induced mutations have given rise to the hope that the processes underlying heredity and variation may be brought under human control. If this becomes possible, the implications for personality development will be considerable; evolution might be speeded up, or its so-called normal course might be radically altered. Much work remains to be done in this area before such hopes can be realized. Thus far we can talk with certainty only of the exchange of physical characteristics. Although physical characteristics are the basis for much of personality development, many other factors also contribute to this development.

PERSONALITY AND GENETICS

In the light of present knowledge, it is difficult to predict the inheritance of even strictly physical characteristics; yet some individuals speak of the transmission of such complicated and culturally influenced factors as mental ability, temperament, and attitudes. As yet no one has demonstrated the presence of genes controlling intellectual ability or personality characteristics. If these qualities are transmitted biologically, the mechanisms for their inheritance are unknown. In the meantime students of personality are interested in learning with what assets the processes of inheritance have equipped the individual.

PRENATAL DEVELOPMENT

Late nineteenth century biologists were of the opinion that the future structures of an organism were completely determined by inheritance—that the development of bodily characteristics was the exclusive task of germ cells. They were oblivious of the influence

¹² H. J. Muller, C. C. Little, and H. J. Snyder, *Genetics, Medicine and Man*, Ithaca, N. Y.: Cornell University Press, 1941.

¹³ H. J. Muller, "Radiation and Human Mutation," *Scientific American*, 1955, 193: 58-68.

on a growing organism of both internal and external environmental factors.

Because it neglects important environmental influences, as well as embryonic responses, affecting development, Child rejects this hereditarian view of prenatal growth. He writes,

This conception [dominance of heredity] is fundamentally preformistic and fails to take account of the facts of physiology. Actually the organism is not at any stage in a closed system, but is functioning and behaving at all times as long as it is alive. Reaction to environment is occurring at all stages of development. . . . Moreover, such behavior or reaction is itself a factor in development and therefore in the construction of the behavior mechanisms of later stages. The behavior of the various developmental stages as well as the specific hereditary constitution of the protoplasm is a factor in determining the behavior of the fully developed organism.¹⁴

Studies of the influence on development of other external and internal environments prior to birth have substantiated this view.

THE IN-UTERO ENVIRONMENT AND DEVELOPMENT

Biologists have discovered that "what any particular cell of the individual produces is largely determined by the surroundings of that cell—by the cells in contact with it, and by the hormones that bathe it; in short, by the 'internal environment'—so that the same set of genes produces different results in different cases."¹⁵

This phenomenon is illustrated by the influence of both the environment and the cytoplasm (fatty material surrounding a chromosome cell nucleus) in the development of the sea urchin. When a two-celled sea urchin egg is divided (causing each cell to move in a watery environment instead of being attached to another cell) both metabolic activity and the subsequent course of development of the animal are affected. It has also been found that the cytoplasmic material of the sea urchin single-egg cell is almost as essential to its normal development as are its chromosomes and genes. If certain zones of the cytoplasm are removed, corresponding structures of the organism being produced do not develop. This phenomenon occurs even when the chromosome nucleus of the egg cell is undisturbed.

¹⁴ C. M. Child, *Physiological Foundations of Behavior*, New York: Henry Holt and Company, Inc., 1924, p. 2.

¹⁵ H. S. Jennings, *op. cit.*, p. 122.

One investigator has claimed that the light green stripes in corn are caused by cytoplasm influence.¹⁶

Child has suggested that it would be to man's advantage to recognize "that environmental factors play some part in ordering and unifying the process of realization of hereditary potentialities in the development of the individual organism . . ." ¹⁷ The body-building function performed by any given somatic cell is determined by its surroundings—by the cells, hormone action, temperature, and other influences in its immediate vicinity. For example, if in the early embryonic stage of development a small cluster of cells destined to assist in the production of muscle tissue is transplanted to a "sphere of influence" concerned with the growth of bony structure, it participates in the function of its new environment and assists in the production of bony material. This process of accommodation enables the developing organism to maintain its structural integrity even when disturbed by accident or surgical manipulation. It is not long, however, until the developing organism reaches a stage where growth trends are sufficiently definite to resist modification. From this point on, cells which chance to be transplanted or otherwise moved continue to produce the structures with which they originally were concerned. This phenomenon of growth may occasionally result in the appearance in animals of such inappropriate body formations as two heads, two tails, extra legs, and eye deformities. It is probable that this anomaly of development provides at least a partial explanation for many animal monstrosities.

EXTERNAL FACTORS AFFECTING EMBRYONIC DEVELOPMENT

The extent to which factors external to the body influence the development of embryonic physical structures is not generally known. It has been possible to observe such modifications in certain of the lower animals. The axolotl salamander, for example, although normally a water animal equipped with finlike legs, a flat tail, and gills, will, when required by circumstances to develop on land, become an *Amblystoma* characterized by a round tail, lungs, and legs appropriate for locomotion on land. It may be that differing environments

¹⁶ A. F. Shull, *Heredity*, New York: McGraw-Hill Book Company, Inc., 1948, pp. 161-162.

¹⁷ C. M. Child, *op. cit.*, p. 32.

stimulate the genes involved to develop different body structures, or that land surroundings permit them to prolong growth past the stage possible in watery surroundings.

Another example of external influence on development is afforded by observations on the fruit fly. If at the hatching stage this fly is required to live in a lowered temperature, it grows numerous legs instead of the six characteristic of its species. According to Hoge, certain thermal and chemical conditions are essential to normal growth in this and other animal organisms.¹⁸ Some fish, for instance, develop one eye instead of the usual two if incubated in abnormal temperatures. Others—the squid embryo, for example—become one-eyed when permitted to develop in chemically treated sea water for from 12 to 48 hours.¹⁹ These examples are illustrative of the marked influence of certain external environmental factors on the development of physical structures. They suggest the dependence of even the genes and chromosomes upon external conditions for the realization of inherited physical potentialities. A complex combination of factors, in addition to germinal possibilities, seems to operate in bringing about the physical development of the embryonic organism in lower animals. Many biologists believe that this same principle holds in the case of human embryos.

THE DEVELOPMENTAL PROCESS AND PERSONALITY

Physical and possibly other characteristics transmitted through the germ plasm from generation to generation are generally considered to be products of heredity. These characteristics are not, however, transmitted from parent to offspring in the form of structure or behavior. Instead, parents pass on germ cells which control the appearance of inherited factors. It is the process of development jointly influenced by heredity and environment which determines behavior and thereby personality. There is no "pure" heredity.

¹⁸ Mildred A. Hoge, "The Influence of Temperature on the Development of a Mendelian Character," *Journal of Experimental Zoology*, 1915, 18:241-297. See also A. F. Shull, *op. cit.*, pp. 123-129.

¹⁹ Paul Weiss, *Principles of Development*, New York: Henry Holt and Company, Inc., 1939, p. 146.

GERMINAL FACTORS

The germinal life span of an individual begins with the formation of an ovum or a spermatozoon and reaches a climax with the process of fertilization. Clinicians believe that a pathological condition having its origin during this period is brought about by an injury or scarring of the ovum or sperm. Although it is believed that in the case of the ovum the injury is to the cytoplasm rather than to the nucleus containing the chromosomes, the exact nature (or cause) of such an injury is not understood.

The special form of intellectual deficiency known as *mongolism* is believed to be the sole psychological disorder due to germinal factors. Intellectual deficiency is not, therefore, considered to be primarily of hereditary origin.

EMBRYONIC FACTORS

Embryonic factors are in operation from the moment of fertilization of an ovum to the end of the eighth week of pregnancy. All organs, as well as the general form and structure of the various parts of the body, are formed during this time. Differentiation of the various body structures is roughly 95 per cent complete by the end of the eighth week. It is during this crucial formative period that certain pathogenic factors may result in such malformations as clubfoot, harelip, or cleft palate.

Differences in degree of metabolic activity in various parts of the developing organism may account for certain physical anomalies and malformations. Certain chemical substances probably condition the developing embryo, and an imbalance among these chemicals may explain some subsequent malformations. In the case of certain of the lower animals applications of electricity, light, X rays, and various chemicals affect both the physical structure and the later behavior of the individual. The pathological outcomes which, it is believed, derive from influences active during the embryonic period include microcephalic mental deficiency, macrocephalic mental deficiency, and hydrocephalic mental deficiency.

Maternal rubella (German measles of the mother) has also been found to be responsible for congenital anomalies. Mothers who suffer from rubella (an acute contagious disease characterized by a rose-colored rash) during early pregnancy may have children characterized

by pronounced ocular defects. Malfunction of the heart, deafness, and mental retardation frequently appear among children born to mothers who have had the disease during the first months of child-bearing. One investigator found that some congenital impairment or malfunction was present in 100 per cent of the children delivered to mothers who had had rubella in the first two months of pregnancy.²⁰

FETAL FACTORS

Fetal factors influence the developing organism from the end of the embryonic period to the time of birth. Three major influences may be in evidence at this time: nutritional deficiency, endocrine disturbances, and infections. Malnutrition of the mother during the period of gestation may result in mental defect in the infant because the fetus does not receive the elements necessary for normal development from the mother's blood stream. The prenatal growth of the nervous system may be affected and result in mental deficiency.

Researches have shown that a deficiency of iodine in the diet of a pregnant mother results in a corresponding inadequacy of thyroid hormone secretion. Lack of this thyroid secretion (thyroxin) in some instances produces a condition called *cretinism*, a special type of mental deficiency, in the child. A syphilitic mother may infect the fetus through the placenta, the organ through which nutrition and oxygen are transmitted to the fetus. Such an infection in turn may result in syphilitic mental deficiency or juvenile paresis in the child.

IMMATURITY AND PREMATURE BIRTH

Certain pathogenic factors may interrupt the normal gestation period and bring about premature birth—produce birth three or more weeks before term. Premature fetuses in most instances are also immature—i.e., weigh less than five and one-half pounds. Immature and premature offspring are more prone to diseases than are normal children. The most common causes of prematurity and immaturity are malnutrition, syphilitic infection, accidental hemorrhage (in the mother), toxemia (a poisoned state of the blood), and undue physical strain.

²⁰ C. H. Albaugh, "Congenital Anomalies Following Maternal Rubella in Early Weeks of Pregnancy," *Journal of the American Medical Association*, 1945, 129:719-723.

BIRTH INJURIES

Intranatal factors, or injuries associated with birth, occur between the onset of labor and complete delivery of the infant. Although labor is variable in its duration, it usually lasts about 24 hours. It may extend to 36 hours without danger or difficulty to the fetus. It is in the second stage of labor, the point at which the head of the fetus passes through the birth canal, that injury is most likely to occur. In making its way through the pelvic canal, the fetus is forced downward by the backward pressure of the contracting uterine muscles. Where there is a great increase in pressure from a too rapid dilatation of the cervix, or more commonly, where there is a noticeable resistance to the oncoming head, damage to the brain may occur. Even a moderate amount of movement may cause some trauma to the brain of the fetus. Most intracranial lesions involve the tearing of blood vessels and result in hemorrhage. The degree of such damage depends upon the extent and location of the hemorrhage.

Not all fetal brain trauma is accompanied by bleeding. In some cases the nerve tissue alone is damaged through direct pressure or by strong compression of the entire brain. In some instances neural connections may be severed by the pressure exerted upon the fetus on its way through the pelvic canal. Major mental symptoms may appear at any time between early infancy and adulthood. Severe cerebral birth damage in some instances has caused the death of the child.

Immediate causes of brain trauma include: (1) *instrumental birth* in which forceps are used to deliver the fetus in such a way that cerebral damage takes place; (2) *version birth* in which the fetal position is changed from a transverse to a breech presentation, sometimes involving pressure on the fetal brain; (3) *pelvic deformity in the mother* in which increased pressure is exerted on the fetal head as it enters the pelvic canal; and (4) *obstetrical complications* in which the placenta is badly located, usually in the lower uterine cavity, with the result that extensive hemorrhage takes place. As Wile and Davis say, ". . . the more severe the operative interference, the higher the infant mortality rate. Thus in Bronx Hospital the infant mortality of those delivered by low forceps was 1.6 per cent, mid-forceps 4 per cent, high forceps 20 per cent."²¹

²¹ Wile and Davis write: "There is a difference between birth rates and natal survival rates. Thus the birth mortality of ward infants born operatively was 8 per cent, while for similarly born private patients it was 5.5 per cent. This is significant since

Contributing causes of birth trauma include *malpresentation of the fetus* and *age of the mother*, since after the age of approximately thirty-six the tissues of the soft parts concerned with birth become increasingly more rigid and labor difficulties are correspondingly increased. Foremost among the results of cerebral birth trauma are epilepsy, mental deficiency, and infantile cerebral palsy (spasticity). In some cases these residuals do not appear until the early school years or adolescence.

EARLY POSTNATAL LIFE

Although the normal newborn infant is quite helpless, he possesses the physical equipment and potentialities which form the basis of his personality. This original equipment includes, in addition to the skeletal framework and body organs, a nervous system, a complex series of duct and ductless glands, a set of immature muscles, and a sensory apparatus which makes possible contact with the external world. Because it is evident that both the prenatal period and the first year of postnatal growth play an important role in future behavior, an understanding of the characteristics of these periods should be of value in connection with the study of personality.

The range of individual differences manifested by infants is reflected in such areas as motor ability and adaptive capacity, and even in relationships with other persons. Many of these differences, although apparently unimportant in infancy, may be indicative of potential behavior deviations in adulthood. The operations of the nervous and glandular systems hold many implications for the psychological reactions associated with later development. They are in great measure the basis for later personality development.

THE NERVOUS SYSTEM

The human nervous system consists of two major but functionally interrelated divisions, the *central* and the *autonomic*. The *central nervous system* is composed of the brain, the spinal cord, and the

ward patients numbered only 3,166, while private patients were 6,834 in number. The effect of birth upon patients is also indicated by the fact that while infant mortality in Bronx Hospital for all births was 1.38 per cent, mortality for those born through operative procedure was 6.1 per cent, and mortality for children born by Caesarian section was 10 per cent" (I. S. Wile and R. Davis, "The Relation of Birth to Behavior," *American Journal of Orthopsychiatry*, 1941, 11:320-324).

various efferent (outgoing) and afferent (incoming) channels which transmit impulses to and from the other parts of the body.

The autonomic nervous system is made up of an intricate series of ganglia, in the vicinity of the spinal cord, and their associated pathways. It controls the organs and glands which regulate digestive, circulatory, metabolic, and other bodily processes. The fetal development of the autonomic system precedes that of the central nervous system, both structurally and functionally, a fact which is of considerable significance in projecting future behavior. Authorities believe that precortical conditioning (prior to the point where analytic or conceptual thinking on the part of the child is possible) may be related to the appearance of anxiety syndromes, tension states, and like conditions now recognized as being of primary significance in psychological disturbances.

The autonomic division of the nervous system is virtually fully developed, in the physiological sense at least, at the time of birth. The central nervous system, on the other hand, is immature at the onset of postnatal life and thus requires further development or maturing, a process which includes that of myelination (the sheathing or insulation of the neurons) before it can function in connection with the development of childhood neuromuscular skills. Such growth is made possible by the maturation of nerve cells which, although present at birth, as yet are unable to function. Muscular maturation must await the growth of nervous structures. The nervous system maintains a dominant role in the growth of the organism, both prenatally and postnatally. In view of its continuous leadership in growth the nervous system must be taken into account in any consideration of personality development.

The significance of the interaction between the two facets of the nervous system described above can hardly be overemphasized. This interaction may form the basis for later disturbances of the organism, disturbances seen in cases of mental and emotional disorder, as well as in instances of structural or tissue changes associated with disease entities. The organism maintains a complex unity. When any part of the organism is disturbed, other parts are involved in some measure. The nervous system serves as the integrating point for the organism, both as regards the internal processes and the contacts which are made with the outside world. Knowledge regarding its role is vital also for an understanding of personality development.

THE ENDOCRINE GLANDS

Many years have passed since Hippocrates presented his concept of "humors," but only recently has it become evident that the endocrine glands exert a vital influence upon all of the bodily processes. For example, it has been found that the organic functions of digestion, metabolism, bodily growth, and sexual development are dependent in great part upon the hormones which the endocrine or ductless glands (also called the glands of internal secretion) pour into the blood stream.

In the case of physical growth, a process basic to personality development, it is the endocrine glands which provide the necessary background for the proper functioning of the many factors involved in the process. The growth hormone is secreted by the eosinophilic cells of the anterior pituitary gland. Injury or malfunctioning of this gland interferes with growth—either through deficiency (dwarfism) or excess (gigantism)—and thus brings about, even if indirectly, the psychological reactions associated with these abnormalities.

Research into hormone activity has demonstrated the fundamental role that endocrine secretions play in regulating the rhythm and intensity of most, if not all, of the vital processes of living. The thyroid gland, for example, secretes a hormone, *thyroxin*, which acts (in an as yet unidentified manner) to increase the metabolic activity of all the cells of the body. In fact, the endocrines play an important, perhaps decisive, role in the operation of the nervous system, both central and autonomic.

The glands of internal secretion are, further, coordinated in such fashion that any given gland acts in close harmony with every other gland. Activity of the endocrine organs also is influenced by such factors as the chemical state of the blood at a given time, the condition of the nervous system, fatigue and emotional states of the organism, and the like. Each gland has a function to perform which is peculiar to itself, a function that can be more or less identified despite the gland's interrelationship with other glands.

THE PITUITARY GLANDS

The pituitary glands (anterior and posterior) are found in the *sella turcica* of the sphenoid bone at the base of the brain. The cells of the anterior pituitary gland resemble nervous tissue so closely

that nervous functions are believed to be associated with it. In addition, the anterior pituitary secretes the growth hormone, failure of which in childhood usually is characterized by dwarfism. On the other hand, both gigantism and acromegaly are caused by excessive secretion of the growth hormone.

The posterior pituitary lobe produces, in its turn, increased tone and control for the uterine muscles in the female, the muscles of the bladder, intestines, and blood vessels in both sexes.

Both glands are involved in such functions as control of skeletal growth, growth and maintenance of the gonads, and carbohydrate metabolism.

THE THYROID GLAND

This gland is located in the anterior middle portion of the neck, is ventral to the upper part of the trachea, and consists of two lateral lobes which are united by a narrow "isthmus" crossing the windpipe close to its upper end. The thyroid is involved in the regulation of physical growth and differentiation, mental attainment, and sexual maturity. Extreme hypofunctioning (underactivity) of the thyroid gland in the fetus results in the disorder known as *cretinism*. In the adult this disorder, called *myxedema*, involves diminution of mental activity, slowness of speech and movement, and loss of hair. Cretinism in the child is a condition in which normal development is halted. The child does not sit up, walk, or talk at the usual age. Mental development is retarded, and the skeleton remains small and stunted.

THE ADRENAL GLANDS

These small yellowish glands are situated just above each kidney and are sometimes called the "glands of action." The adrenals secrete several distinct hormones, chief of which are *adrenaline* and *cortin*. Each of the adrenal glands has two functional areas, namely, the cortex and the medulla. The adrenal medulla (internal layers of cell tissue) secretes adrenaline, the hormone released in intense emotional states. Adrenaline is believed to be decisive in strengthening the activity of the sympathetic division of the autonomic nervous system, thus reinforcing the bodily actions which are a part of emotional reactions.

The adrenal cortex (the external part of the gland) plays a vital

role in adaptation to various stress situations. It secretes the hormone cortin as well as an androgen which affects secondary sex characteristics markedly. Cortin is so essential to the maintenance of normal blood pressure that a serious deficiency leads to lowered blood pressure and eventually to death. Victims of this dread disease (Addison's disease) become fatigued easily and usually are depressed.

Recent sensational reporting on cases of transformation, through surgery and drugs, from male to female sex has highlighted the role of the androgenic steroid secreted by the adrenal cortex. It is the abnormally increased secretion of this hormone during the third to fifth fetal month which leads to female pseudohermaphroditism (i.e., the individual is of one sex, but has the outward appearance of the other) in the genetic female. Similar increased secretion of this hormone after the fifth fetal month brings about virilization (secondary male sex characteristics) in females and pseudoprecocious puberty in males. The third and fifth fetal months apparently are critical periods for development of the internal and external genitalia of the human fetus.

ISLETS OF LANGERHANS

The pancreas is an elongated body situated transversely in the abdomen behind the stomach. In the pancreas are groups of cells called the *islets of Langerhans* which produce the hormone *insulin*. This secretion is indispensable for the proper assimilation of blood sugar. Serious degeneration of the secreting cells results in the disease called *diabetes*, a condition which may also be secondary to such a factor as obesity.

Although the effect of the action of the *islets of Langerhans* on growth and sex is not believed to be as primary, for example, as that of the thyroid and sex glands, their adequate functioning is essential to physical and psychological equilibrium. Disease of any kind on their part exerts an effect on personality.

THE GONADS

Although they do not compose the whole of the sexual system, these glands are involved in both the primary and secondary sex activities of the human species. The sex glands in the male are the testes; in the female they are the ovaries. The testes are influential with respect to sexual potency just as the ovaries are in relation to fecundity.

Both glands are involved in the general emotional states which accompany sex activity. The secretions of their respective sex glands are responsible in great measure for the differentiation of male and female characteristics. The removal, or any serious dysfunction of the sex glands of the female may result in the appearance of certain "masculine" physical characteristics. The injection of female hormones in the male may bring in its wake many of the secondary bodily characteristics associated with the female sex. The problems relating to personality involved in such cases are highly significant for the determination of the role of sex in human life. It generally is held that both female and male sex hormones are present in varying degrees in every individual. Male and female thus are relative terms. The importance of the individual's sex and sexual motives as determinants of behavior are apparent to all. Thus, it is clear that the gonads exert a strong influence upon personality.

THE PINEAL GLAND

This is a small, conical reddish-gray appendage of the brain which some investigators consider to be a vestige of a once-significant sense organ. Curiously enough, some philosophers, notably Descartes, believed this gland to be the "seat of the soul." At present the pineal gland is regarded as playing a role of some kind in body growth and sexual development.

THE THYMUS

This gland is situated in the upper part of the thorax and lower part of the throat. It either disappears or ceases to function in adulthood. Although there is reason to believe that the thymus is involved in body growth and the formation of blood, the effect of its secretions is not adequately understood.

To recapitulate, the glands of internal secretion function cooperatively in their various activities and represent an important factor in the over-all life processes. They regulate the dynamic balance within the body and in so doing play a fundamental role in the growth and maintenance of life, as well as having a share in the determination of congenital inheritance. Thus, despite the limitations of present knowledge of endocrine functions, it is obvious that the activities of these glands are basic to personality development.

With respect to the role of the endocrines in psychological equi-

librium, Nodine and Perloff write as follows: "Emotional factors may lead to endocrine changes as exemplified by the onset of hyperthyroidism or amenorrhea following stress, and, conversely, endocrine disease may lead to emotional derangements as seen in the menopausal state, Addison's disease, or Cushing's syndrome." ²² Thus we see the marked effect of "adverse" stimuli upon endocrine functioning, and by the same token, malfunction of the endocrine organs upon representative behavior.

SUMMARY

This chapter has reviewed some aspects of the biological basis of personality. The emphasis has been on the role played by the genetic and in-utero forces influencing biological health and development. These forces include phenomena of development which occur within the organism during the time from inception to delivery.

It was seen that such factors as chromosome and gene action, the reduction process, the phenomena of blending, linkage, and crossing over, exert a profound influence on later personality development. In short, they constitute the biological basis of personality. In the process of prenatal development, germinal, embryonic, fetal, and natal influences also make themselves felt as precursors of personality. Finally, certain functions of the nervous system and the endocrine glands play their part in determining the individual's patterns of action and outlook on life.

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3

Motivation and Personality

ANIMALS SPEND their lives in a struggle to satisfy their ever-recurring needs. From the amoeba to the sperm whale, life is characterized by a sensitivity to needs which initiate action. Animals eat, drink, sleep, mate, and perform their various and myriad activities largely in an effort to satisfy their organic and, in the case of man, psychological requirements. It is the manner in which man achieves satisfaction and the degree to which he can plan his movements and change the conditions under which he functions that differentiate his behavior from that of other animals. Understanding this behavior is one of the most engrossing problems of psychologists.

THE ACHIEVEMENT MOTIVE

Ancient explanations of man's behavior were simple; he was thought to be motivated primarily by a desire to survive (to gain sustenance and avoid enemies) and to propitiate angry spirits. Modern students have divided themselves into two major camps—those who see all human behavior as the organism's attempts to reduce tensions and reach a state of equilibrium, and those who believe that nonorganic motives, such as the drive for status or esteem, can also move the individual to action. The first group emphasizes adjustment in terms of survival as exemplified in Hull's theoretical model and Miller and Dollard's "stimulus-intensity" design.¹ To account for behavior which is not wholly in harmony with this need or tension-reducing

¹ Clark L. Hull, *Principles of Behavior*, New York: Appleton-Century-Crofts, Inc., 1943; and John Dollard and N. E. Miller, *Personality and Psychotherapy*, New York: McGraw-Hill Book Company, Inc., 1950.

hypothesis, Mowrer says, "Human beings are capable of being motivated not only by organic needs . . . that are immediately present and felt (tensions) but also by the mere anticipation of such needs."²

Such writers as Young, Hebb, and Maslow do not consider this concept adequate no matter how organic need is defined.³ They believe that a culture also motivates individuals and thus affects their behavior—that needs can be learned.

From his study of motivation, McClelland concluded that rather than being essentially tensional states which the organism attempts to eliminate, motives are also drives toward action based upon *expectation* and that activities concerned with primary need gratification can acquire secondary reinforcement.⁴ For example, an infant reacts to the comforts associated with the feeding process as well as to the food itself. The desire for the attention of the mother brings about an affective change involving pleasurable sensations and thus becomes as powerful a motive for the baby's eating as the need for food. Wolfe came to much the same conclusion when he trained chimpanzees to associate the securing of food with tokens. In time the animals solved problems in order to obtain the tokens; the tokens themselves involved expectation and therefore became stimuli possessing motivational properties.⁵

Though the controversy persists, most psychologists have come to believe that motivation leading to behavior comes from both the organism and the environment. The need for food, shelter, and sex are considered primary and innate. The need for love and esteem is thought of as derived. All of these requirements and the types of behavior by which they are attained are the results of the interaction of the individual with the world about him. When food is plentiful, the hunger drive is subordinate; famine intensifies the drive for

² O. H. Mowrer, *Learning Theory and Personality Dynamics*, New York: The Ronald Press Company, 1950, p. 29.

³ P. T. Young, "Food-seeking Drive, Affective Process and Learning," *Psychological Review*, 1949, 56:98-121; D. O. Hebb, *The Organization of Behavior*, New York: John Wiley & Sons, Inc., 1949; and A. H. Maslow, "Dynamics of Personality Organization, I and II," *Psychological Review*, 1943, 50:514-539, 541-558. See also, by the same author, *Motivation and Personality*, New York: Harper & Brothers, 1954.

⁴ D. C. McClelland et al., *The Achievement Motive*, New York: Appleton-Century-Crofts, Inc., 1955. See also, S. E. Asch, "Effects of Group Pressure upon the Modification and Distortion of Judgments," in G. E. Swanson, T. M. Newcomb, and E. L. Hartley (Eds.), *Readings in Social Psychology*, New York: Henry Holt and Company, Inc., 1952.

⁵ J. B. Wolfe, "Effectiveness of Token-rewards for Chimpanzees," *Comparative Psychology Monographs*, 1936, Vol. 12, No. 60.

food. The attitudes and prejudices engendered in different civilizations make for variations in derived needs. The attainment of success in one civilization may not enjoy the premium it would among another people, and it would probably be acquired in a quite different fashion. Thus we have the concept of *drive reduction* (or realization) as contrasted with that of fulfillment of primary needs.

Although there are extant today a number of views regarding what logically may be called the primary and derived needs of man, the tendency is to classify them in as few and as comprehensive groups as possible. Thorpe has summarized these fundamental needs as follows:

- 1 *The Organic Need.* This may be defined as the need for relieving the tensions occasioned by hunger, thirst, pain, fatigue, extreme heat or cold, and so on. Excessive or prolonged frustration of these needs may lead not only to physical disorders but to expressions of anxiety, depression, or hostility.
- 2 *The Self or Ego Need.* The need for response, recognition, of being regarded as an individual of worth, and of enjoying personal autonomy are regarded as expressions of what is called the *ego* need. The individual endeavors to feel adequate in all situations, to gain at least a modicum of distinction, and to merit social approval.
- 3 *The Security-Giving or Mutuality Need.* This may be defined as the need for affection, for being wanted by those who mean something to one's safety, and for a sense of *belonging*. The individual seeks a satisfying relationship with other persons and, as far as possible, some form of mutual intimacy.⁶

NEEDS AS DETERMINANTS OF BEHAVIOR

Although there is some disagreement concerning what motivates human behavior, Goldstein's explanation is representative of a significant segment of thinking on the subject. He believes "that human behavior cannot be understood on the basis of consciousness alone, but that it embraces a great number of events of which we are not conscious."⁷ Goldstein believes that reflexes and drives as central topics of research have caused the true nature of the nonconscious factors to be ignored. These nonconscious factors—viz., bodily proc-

⁶ Louis P. Thorpe, *The Psychology of Mental Health*, New York: The Ronald Press Company, 1950, pp. 39-40.

⁷ Kurt Goldstein, *Human Nature*, Cambridge, Mass.: Harvard University Press, 1940, p. 150.

esses, inner experiences (moods and attitudes), and the aftereffects of experience—are all fundamental to an understanding of personality. These factors in large part constitute the wellsprings of personality. Goldstein continues:

Now, in a person whose behavior is conscious there are always—in addition to those phenomena which we have called conscious—attitudes, bodily processes, and aftereffects of earlier conscious phenomena. Or, to speak more correctly, all these phenomena—conscious and nonconscious—together in a definite configuration, characterize conscious behavior. The singling out of any of these behavioral aspects is a mere abstraction because each of them represents an artificially isolated aspect of the *total behavior*.⁸

Certainly biological needs and bodily processes are prime determinants of behavior, but attitudes, considered as learned modes of response, cannot be omitted in any consideration of behavior. The aftereffects of experiences (memory) are also known to be involved in the initiation of action.

BIOLOGICAL NEEDS

Merely to exist as a living organism involves certain need gratifications. These needs—air, food, water, tissue-balance, shelter, and sexual activity—are primary to *homo sapiens* and their gratification must be sought in large part in the external environment. The body itself provides energy for the processes of life, but this energy is in the main derived from outside sources. And this external source has some significant aspects.

According to Darwin, the human species has, through the avenue of evolution, developed certain structures and functions which enable the organism to fulfill its needs. These structures and functions have become differentiated according to the needs imposed upon them. It was Darwin's hypothesis that evolutionary changes occur through variations or mutations.

Nothing at first can appear more difficult to believe than that the more complex organs and instincts have been perfected, not by means superior to, though analogous with, human reason, but by the accumulation of innumerable slight variations, each good for the

⁸ *Ibid.*, pp. 152-153. Goldstein does not define consciousness in terms of independent entities. For him consciousness is found in man's awareness or recognition of a particular experience.

individual possessor. . . . this difficulty, though appearing to our imagination insuperably great, cannot be considered real if we admit the following propositions, namely, that all parts of the organization and instincts offer, at least, individual differences—that there is a struggle for existence leading to the preservation of profitable deviations of structure or instinct—and lastly, that gradations in the state of each organ may have existed, each good of its kind. The truth of the proposition cannot, I think, be disputed.⁹

Modern breeding techniques have demonstrated with almost uncanny consistency that there is much truth in Darwin's hypothesis: changes in the environment result in corresponding changes in means of adaptation. According to the principle of evolution, practically all of the behavioral characteristics of an animal have become adaptive as a result of the process of natural selection. Thus the needs of an organism vary in relation to changes in both environment and function. It also is apparent that changes in the environment affect an animal's appearance, as well as its overt responses. The praying mantis can camouflage himself from his enemies; the chameleon is able to change the color of his skin and thus conceal himself.

On infrahuman levels there often occur what appear to be instinctive reactions to biological needs. This is not to say that the behavior of animals is entirely instinctive. On the contrary, much of what has been thought of as instinctive behavior has actually been learned. In the case of man, the satisfaction of many basic needs has become part of a conscious effort to stay alive.

Understanding personality depends on knowing the effect which these needs have upon the organism. This effect is, in fact, the means by which adjustment is measured. It is in the unique relationships of the organism and needs that the key to the dynamics of personality is to be found.

Man, unlike other animals, makes a conscious effort to reduce his needs, and it is here that he brings into play the artifacts which he has invented or innovated. Indeed, if man could deal with his psychological needs as well as he has with his biological demands, the phenomena of crime, delinquency, and war, to mention but a few, would have become memories.

In psychology, energy is assumed to be the determinant of behavior. As Jennings has said,

⁹ Charles Darwin, *Origin of Species*, New York: Appleton-Century-Crofts, Inc., 1917, Vol. II, pp. 267-268.

The activity of organisms we found to be spontaneous, in the sense that it is due to internal energy which may be set in operation and even changed in its action without present external stimuli. In reactions this energy is merely released by present external stimuli. What form the activity shall take is limited by the action system, and within these limits is determined by the physiological state of the organism.¹⁰

Energy, then, may be considered the engine which keeps the response patterns of the individual in operation. Upon energy depends the balance of body tissue, and therefore man's continuity as a living species.

PSYCHOLOGICAL NEEDS

For many years psychological needs were believed to be synonymous with instincts, and self-preservation was thought to be the strongest of the instincts. That external conditions have sometimes caused men to commit suicide did not, in the opinion of those who promulgated this view, invalidate it. As late as 1938 Painter wrote,

Instinct is innate tendency to specific reaction patterns impelled from within and common to all members of a species. Instinctive action is teleological . . . definite ends dominate the series of coordinated actions, which are impelled by craving or appetite, while reflex action is mechanical in response to direct stimulations with no appreciation of ends to be realized.¹¹

Psychological need does not come of instinct; it comes of society. When man roamed alone in the jungle, his needs probably were limited to biological gratifications. As men banded together in societies, however, certain problems of group living arose and it is these problems which we call psychological. Staying alive in the physical sense is not the only problem which faces modern man, there also is the one of maintaining a balance within the framework of his society. It is failure to affect this balance which leads to maladjustment. How an individual feels toward his society, his attitudes regarding certain matters, and his sense of security or of insecurity to a sig-

¹⁰ H. S. Jennings, *Behavior of the Lower Organisms*, New York: Columbia University Press, 1931, p. 312.

¹¹ G. S. Painter, *Fundamental Psychology*, New York: Liveright Publishing Corp., 1938, p. 489.

nificant degree are ways of thinking and acting virtually built into him by his society. In a society, man desires, in addition to fulfillment of his basic biological needs, certain other gratifications, such as the esteem of his peers, a feeling of belonging, and at least a modicum of prestige. And these needs become as essential to his well-being as food and shelter.

MAINTAINING EQUILIBRIUM (STEADY STATE)

Darwin's work shed new light on the proclivity of the organism to maintain its equilibrium even in the face of great environmental changes. Physiologists (notably Cannon) have called the body's tendency toward equilibrium *homeostasis*. Loeb suggested that man's actions were directed by forces within the environment—that the body responds to the forces about it in such a way as to maintain a balance. He called this *tropism*.

“NATURAL” TELEOLOGY

It is from situations in which needs or drives remain unsatisfied that behavior is directed. The organism is forced to make certain movements in order to reduce the tension within it. By its very “nature” the organism is always seeking equilibrium. Thus behavior is a function of tension release or, perhaps more specifically, of the tendency toward equilibrium. However, the search for equilibrium is not teleological, the organism does not act in conformity with a force which drives it toward some goal.

Lewin recognized only a natural teleology, so to speak, a teleology which affirms the biological or psychological nature of needs. Apparently these needs are sufficient in themselves to bring about a state of tension. Impulses to action are derived from the environment, and these impulses set into motion the complex chain of events which are, according to Lewin, the basis of behavior. He explained the process as follows:

The perception of an object or event may thus (1) give rise to a certain psychical tension (e.g., a desire), or (2) it may communicate with a state of tension already existing (as a result of some intention or need) in such a way that this tension system thereupon assumes control over motor behavior. In such cases we say that the object

in question possesses a "valence." (3) Valences act as environmental forces "steering" subsequent behavior. Finally, (4) this behavior leads to satiation or to a resolution of tension so that a state of equilibrium is approached.¹²

THE FUNCTION OF VALENCES

Lewin considers behavior to be a *total* process. Using as constructs some of the concepts of modern physics, he deals with situations in which separate *vectors* determine the dynamics of each particular experience of the individual. Thus each situation faced by the organism constitutes a "field of tension" upon which the environment, as a set of "valences," operates:

It is therefore of the first importance whether . . . a reservoir of energy is present or not, for the forces which might otherwise have served to govern behavior are without effect if there are no sources of psychical energy. . . . Satiation involves not only a change in locus of these forces, but also a decided change in the psychical tension which had underlain the goal-seeking behavior.¹³

As an illustration of Lewin's concept we may consider the hunger drive. Obviously the satiated individual will not behave (in terms of intensity) as does the person who has been deprived of food. In considering any situation, then, the goal—while it may give direction to the effort—is, according to Lewin, secondary. For in evaluating behavior we must take into account all the features of a particular situation, e.g., intensity of drive, nature of the obstacles present, etc. It is such features which compose the complex of forces which regulate behavior.

TENSION-SYSTEMS

Lewin believes that the dynamic character of experience cannot be effectively diagnosed in terms of specifics. That is to say, a particular drive does not correlate exactly with a bit of behavior. It is the dynamic nature of the whole event which provides insight into the direction which behavior takes. This dynamic event Lewin called a *tension-system*. Since they give rise to tension-systems, which in their

¹² *Ibid.*, pp. 288-289. See also Clarence Leuba, "Toward Some Integration of Learning Theories: The Concept of Optional Stimulation," *Psychological Reports*, 1955, 1: 27-33.

¹³ Kurt Lewin, "Will and Need," in W. D. Ellis (Ed.), *A Source Book of Gestalt Psychology*, New York: The Humanities Press, 1950, p. 288.

turn determine the character of actions, Lewin accepted needs as primary factors in behavior. In fact, the tension-system insures the continuance of behavior designed to find such conditions as will bring about the reduction of the tension which is disturbing the organism.

THE INTERRUPTION TECHNIQUE

Zeigarnik, a student of Lewin, initiated a series of studies designed to test Lewin's theory of tension-systems, utilizing a chain of interrupted acts. The subjects were presented with small tasks, some of which they were permitted to finish, some of which were interrupted. On a subsequent memory test the noncompleted tasks were recalled more easily and more accurately than the completed ones. From her results Zeigarnik concluded that in the interrupted tasks the tensions involved were not released and thus persisted as factors in recall.

Ovsianka used the same technique and secured even better results. She repeatedly interrupted her subjects at their assigned tasks in her laboratory. Upon leaving the laboratory she watched them through a one-way screen and found that many of her subjects then completed their tasks. Such tests suggest a "drive toward completion." Lewin stated the possibilities inherent in his theory of tension-systems thus:

In addition to the forces resulting from the cognitive structure as such, the cognitive structure is deeply influenced by the needs of the individual, his valences, values, and hopes. These forces play an important role in the solution of any intellectual task. In fact, a psychological force corresponding to a need can be said to have two basic results. It leads either to locomotion of the individual in the direction of the psychological force or to a change in his cognitive structure in a way which corresponds to such locomotion or which facilitates it. Therefore, all intellectual processes are deeply affected by the goals of the individual.¹⁴

A HIERARCHY OF NEEDS

Some psychologists have suggested that needs or drives probably operate on ascending levels, that is, on a spiral basis. As Lewin submitted in his concept of level of aspiration, drives emerge as the result of the satisfaction of other drives. As Maslow states the case,

¹⁴ Kurt Lewin, "Field Theory and Learning," in *The Psychology of Learning*, Forty-first Yearbook, NSSE, 1942, Part II, p. 238.

"man is a perpetually wanting animal. Ordinarily the satisfaction of these wants is not altogether mutually exclusive, but only tends to be. The average member of our society is most often partially satisfied and partially unsatisfied in all of his wants."¹⁵ From this vantage point Maslow has envisaged five sets of goals in terms of what he regards as the basic needs of man, goals which are related to each other in a "hierarchy of prepotency." These needs are for (1) physiological gratification, (2) safety, (3) love, (4) esteem, and (5) self-actualization.

PHYSIOLOGICAL NEEDS

The mere satiation of hunger and thirst, the gratification of sex needs, and the securing of shelter are signals for the seeking of the fulfillment of "higher" needs. Once assured of an ample supply of food, the erstwhile hungry individual seeks for further means by which to gratify his palate. The desire for food as such is supplanted by a desire for particular foods.

SAFETY NEEDS

When all of his current physiological needs have been satisfied, the individual seeks the security of a safe haven in which to carry on his activities.

LOVE NEEDS

When the satisfaction of both physiological and safety needs has been assured, the individual seeks the affection of others, particularly of members of the opposite sex. Certainly the primary needs must be met, but, once these are out of the way, most individuals crave companionship.

THE NEED FOR ESTEEM

A still "higher" level of need is that for the respect of one's fellow men. It is this need which leads man to seek prestige in both occupational and social relationships.

THE SELF-ACTUALIZATION NEED

After all of the other levels of need have been gratified, in the case of many individuals there still remains the need for doing creative

¹⁵ A. H. Maslow, "Theory of Human Motivation," in P. L. Hariman (Ed.), *Twentieth Century Psychology*, New York: The Philosophical Library, 1946, pp. 22-48. See also, by the same author, "Defense and Growth," *Merrill-Palmer Quarterly*, 1956, 3:36-47.

work of some kind. The accomplishment of useful tasks and the carving out of a desired career are marks of the fulfillment of this need. Artists have painted to create beauty alone and others have aspired to "noble" deeds because of the drive for self-actualization. As Ghiselin wrote:

Neither in art nor in science is the use always anticipated. Application of a scientific truth to narrowly practical purposes may never even occur, and it follows long after the discovery. But it is evident that in both art and science the inventor is to some degree incited and guided by a sense of value in the end sought, something very much like an intimation of usefulness . . . when the Greeks studied the ellipse they could not find any use for its properties which they discovered, their work was the necessary preliminary for some of the most important discoveries of Newton and Kepler.¹⁰

THE ENRICHED PERSONALITY

The "enriched" personality differs from most in that equilibrium is much less easily achieved. Certainly this was true of such dedicated personalities as Lincoln and Ghandi. The enriched personality has sacrificed the usual means of satisfying his basic needs in order to accomplish a purpose. Satisfaction of the biological and the psychological needs does not seem to deter the unusual personality from his course. In some instances, a different, a "higher," need or drive is evident. Here, then, is an example of drive-reduction behavior which is relatively independent of need as such.

Why did Gauguin leave the comfort of success in his society to spend his life painting in poverty? Why did Father Damien, an obscure Belgian priest, dedicate his life to service among the lepers on the island of Molokai when many about him objected and feared for his life? Why in periods of war, for instance, do men perform such heroic deeds and in ordinary times seek only to gratify their recurring basic needs and live out their lives, as Thoreau so colorfully expressed it, in "quiet desperation"? Is it possible to account for all action in terms of motivated behavior of one kind or another, or is a new kind of distinction involved? These are among the problems which persist in research concerning motivation. Operational answers, such as the assumption that certain of these unusual

¹⁰ B. Ghiselin (Ed.), *The Creative Process*, Berkeley: University of California Press, 1952, p. 10.

personalities had been reared in situations which produce strong needs for drive reduction by sacrifice, have not been acceptable to psychologists outside the "school of behaviorism."

Those who support the behavioristic doctrine see personality as a façade for behavior. Man's movements are subservient to his drives, and the answers to problems of personality are to be sought in the responses which stimuli arouse in him. According to Skinner, for example, personality is but a series of S-R (situation-response) units. He says:

The external variables of which behavior is a function provide for what may be called a causal or functional analysis. We undertake to predict and control the behavior of the individual organism. This is our "dependent variable"—the effect for which we are to find the cause. Our "independent variables"—the causes of behavior—are the external conditions of which behavior is a function. Relations between the two—the "cause-and-effect relationships" in behavior—are the laws of a science. A synthesis of these laws expressed in quantitative terms yields a comprehensive picture of the organism as a behaving system.¹⁷

THE POSITIVE ASPECTS OF PERSONALITY

Some psychologists, not content with a description of personality in terms of behavioristic doctrine alone, have attempted to define it in more positive terms.¹⁸ Hundreds of investigations, particularly on the infrahuman level, have been conducted with drive as the keynote. Being thus directed, the results have inevitably demonstrated at least some validity in the drive hypothesis. Thus drive, although categorized into various levels by some psychologists, has usually been a predominating influence in personality appraisal.

Perhaps this emphasis on drive has emerged as a result of Darwin's theory of selection. If life is but a struggle for survival, viz., meeting the needs imposed upon us through the sheer mechanics of existence, then all behavior must be interpreted in terms of this struggle. The

¹⁷ B. F. Skinner, *Science and Human Behavior*, New York: The Macmillan Company, 1953, p. 35.

¹⁸ In writing of the "ultimate" in mechanistic behavior, the so-called thinking machine, Flesch says that "obviously . . . there is something—call it imagination, intuition, inspiration—something human beings and animals are capable of but machines are not. Machines are based on memory, and an "inspiration" is, by definition, something that comes to the mind—that is, from somewhere outside. Not for the machine the fanciful notion, the whimsical thought, the surprise attack on a problem" (R. Flesch, *The Art of Clear Thinking*, New York: Harper & Brothers, 1951, p. 5).

general acclaim given psychological theories of adjustment indicates the acceptance accorded this statement.

There have always been some who dissented, who saw evidence of the existence of dynamic factors over and above those of need reduction. They cited those individuals who "expressed their personalities in its maximum sense" and seemed oblivious of all but a minimum fulfillment of certain of the primary needs.

Of course the psychologist may contend, and with some justification, that certain individuals who have realized the fullest expression of their personalities thereby have satisfied a culturally derived ego-need, uncommon though this need may be. But the statement, for example, that a person merely experiences a sense of relief or satisfaction from sacrifice or martyrdom may be an oversimplification of this phenomenon. It is, of course, possible that those who have gone far beyond the satisfaction of ordinary needs and have suffered for what they considered to be right may have been engaging in high-level drive reduction which provided them with intense satisfaction which was independent of the fulfillment of needs as such.

SELF-ACTUALIZATION

Maslow has advanced a unique version of motivation of "self-actualizing people." Using a method of research which admittedly was only to a degree objective and scientific, Maslow endeavored to ascertain the characteristics of individuals whose personalities are marked by positive rather than negative factors, i.e., mentally healthy rather than neurotic persons. In short, he attempted to assess the personal qualities which separate individuals whose lives have constituted an expression or manifestation of self-realization (high-level drive-reduction) from those whose lives have appeared to operate on a level of mere adjustment or what Maslow calls "coping with needs."¹⁹

Such historical figures as Lincoln and Jefferson and such more nearly contemporary ones as Jane Addams, William James, and Eleanor Roosevelt were selected for study. There were 40 in all.

The positive criteria for selection was positive evidence of self-actualization (SA) as yet a difficult syndrome to describe accurately

¹⁹ A. H. Maslow, "Self-Actualizing People: A Study of Psychological Health," *Personality Symposium*, No. 1, April, 1950, New York: Grune & Stratton, Inc., 1950, pp. 11-34. See also, by the same author, "Deficiency Motivation and Growth Motivation," in *Nebraska Symposium on Motivation*, Lincoln: University of Nebraska Press, 1955.

. . . it may be loosely described as the full use and exploitation of talents, capacities, and potentialities. Such people seem to be fulfilling themselves and be doing the best that they are capable of doing. *They are people who have developed or are developing to the full stature of which they are capable.*²⁰

Situations of a laboratory nature were, of course, out of the question since the study dealt with both living and deceased persons. To augment his conclusions, Maslow gave his living subjects Rorschach and other tests.

The following are Maslow's "whole characteristics of self-actualizing people"—individuals who are marked by a degree of optimum psychological health which reaches beyond simple need reduction.

1. *More Efficient Perception of Reality and More Comfortable Relations with It.* SA people are free from superstitions and prejudices which distort reality. Being armed with knowledge, they do not fear the darkness of ignorance. Instead, they base their lives on that which is known, secure in the logic of their empirical principles. The disturbances which are a source of concern to fearful and credulous persons do not affect the SA people. In fact, as Maslow writes, "doubt, tentativeness, uncertainty . . . which is for most a torture, can be for some a pleasantly stimulating challenge, a high spot in life rather than a low."
- ✓ 2. *Acceptance (Self, Others, Nature).* As a corollary of the preceding characteristic, SA people are neither perfectionists nor absolutists. They accept the failings of mankind but do not unduly grieve over them. Rather, they try to help, not perfect, people. Many phases of life are harsh and unpleasant but the SA people do not permit such aspects of living to torment them.
- ✓ 3. *Spontaneity.* "Self-actualizing people," according to Maslow, "can all be described as relatively spontaneous in behavior and far more spontaneous than that in their inner life . . . Their behavior is marked by simplicity and naturalness, and by lack of artificiality or straining for effect." Thus SA people, having accepted the world as it is (although determined to improve it, if possible), have no need of sham or pretense.

²⁰ A. H. Maslow, *Personality Symposium*, No. 1, p. 12. Italics are Maslow's. He characterizes this type of development as also involving *growth motivation* or a drive toward *self-perfection*.

4. *Problem-Centering.* The problems of the SA personalities are object-centered and not self-centered. In this respect the SA people resemble that Sophocles about whom Matthew Arnold wrote that he "saw life steadily and saw it whole." Certainly the SA individuals are concerned with the details of their own lives but, as Maslow says, they submerge these in "higher" needs, i.e., the problems of people in general.

5. *The Quality of Detachment: The Need for Privacy.* SA people like a certain amount of solitude and the company of their own kind. Thoreau's *Walden* is an excellent example of the value of communing with one's self. But this desire for solitude does not make SA people misanthropic. On the contrary, it enriches their understanding of and sympathy for the rest of humanity.

✓ 6. *Autonomy, Independence of Culture, and Environment.* Strong in themselves, SA people grow from these powers within themselves. The SA personalities live, not to transcend, but to enrich their environment.

7. *Continued Freshness of Appreciation.* The boredom which often affects the average human being is not felt by the SA people. They are never tired, as the poet puts it, of the infinite richness and variety of nature. They possess the rare virtue of being able to experience, even at a later age, episodes with the joy which generally is believed to be a perquisite of youth.

✓ 8. *The "Mystic Experience," The "Oceanic Feeling."* The SA people feel more strongly than the rest of humanity about the wonders of the universe. The SA personalities are more keenly attuned to their surroundings; they "feel" more intensely the sounds and colors which they see in nature.

9. *Gemeinschaftsgefühl.* From Adler, Maslow has adopted a colorful German term with which to describe one of the characteristics of his SA group. The SA individual loves humanity despite its manifest failings. SA people have a deep sense of loyalty to and affection for the human race.

10. *Interpersonal Relations.* A corollary of the preceding characteristics might be stated as "He who loves his fellow must surely make much of this love." Since they feel a sympathy for all men, the personal relations of SA people are more profoundly experienced. Their

circle of acquaintances is small but well-chosen, and the result is mutual enrichment of experience.

11. *The Democratic Character Structure.* All of the SA people are democratic in the deepest sense of the term. They not only are friendly with persons from any class, educational status, political belief, race, or color, but seem largely unaware of these differences. Without displaying undue "dignity," they seem willing to learn from anyone.

12. *Means and Ends.* The SA people do not believe that the end justifies the means. They are scrupulously fair in all their dealings and are consistently honest. They do not desert principles for success nor sacrifice friendship for expediency.

13. *Philosophical, Unhostile Sense of Humor.* The SA person distinguishes wit from humor. He is not interested in the usual witticisms, the topical jokes of the day. Being more than ordinarily reflective, it is the foibles and frailties of mankind in general which are humorous to the SA type of person.

14. *Creativeness.* "This is a universal characteristic of all the people studied or observed. There is no exception. Each one shows in one way or another a special kind of creativeness or originality or inventiveness which has certain peculiar characteristics."

AN APPRAISAL OF "SA" PEOPLE

When dealing with the human personality, no matter how enriched, we are likely to discover some flaws. For while the SA people love humanity, they argue with humans. They seek to do good but at times are criticized for their efforts. It would be strange indeed if the qualities which so sharply set off the SA individual from his fellows did not at times turn into two-edged weapons. If one feels intensely in any area of human endeavor he is likely to act in ways which affect people adversely. Maslow writes that such people, being positive in their views on life, may act in ways which bring harm to their own culture. The man of principle in a world of expediency sometimes makes many enemies. In some instances his behavior is out of place and may be misunderstood. Being to a degree aloof from his fellows the SA individual at times is considered an "enemy within the gates."

The attitude of the SA personality toward people and the world

is basically sane and healthy, despite a certain amount of friction which it may engender. The SA people have a feeling for humanity and one hardly can deny the need for such an attitude in the world of today. Unfortunately, the individual who is a nonconformist himself seldom is loved by his more conforming and stereotyped fellows. Nevertheless, his example may serve to motivate those who identify with him. Lincoln did not permit the fierce passions of war to turn him from his concern for the rank and file of people of his country, both in the North and the South. SA personalities, being relatively free from hatred and prejudice, have a beneficial role in the progress of mankind.

Since Maslow's SA people are often exceptions to the rule, their way of life may not have very wide possibilities of application. Personality enrichment may mean different things to different people and perhaps should be thought of in these terms. Maslow's study is, however, thought-provoking and should lead to a better understanding of the qualities which characterize personalities marked by optimum psychological health and who live on a level beyond that of routine need-reduction.

THE FULLY FUNCTIONING PERSON

Rogers, as a result of his own "client-centered" approach to the problems of personality adjustment, has arrived at conclusions somewhat similar to Maslow's concept of self-actualization.²¹ As Rogers sees it the "fully functioning person" can be recognized by the following three personality characteristics.

✓ 1. *This person would be open to experience.* "The crucial point," writes Rogers of this characteristic, is "that there would be no barriers, no inhibitions which would prevent the full experiencing of whatever was organismically present." In other words, as Maslow has indicated in his presentation, the fully functioning individual would face problematic situations without fear or hesitation. There would be little need on his part for defense mechanisms. Awareness, not escape, would be the key word in the fully functioning person's experience.

2. *This person would live in an existential fashion.* The fully func-

²¹ C. R. Rogers, "The Concept of the Fully-Functioning Person," unpublished manuscript, The University of Chicago, 1954.

tioning individual would not control his experiences; rather, he would be a participant in and an observer of the ongoing process of organismic experience. In effect, this statement implies a lack of rigidity, of tight organization, or of the imposition of a frame of reference designed to distort the individual's thinking. As Rogers writes ". . . the self and personality would emerge *from* experience, rather than experience being truncated or twisted to fit a preconceived self-structure."

3. *This person would find his organism a trustworthy means of arriving at the most satisfying behavior in each existential situation.* That is to say, such a person would act in accordance with what he regarded as suitable conduct in a given situation. He would know when he "felt right," to use Rogers' illustrative phrase, and this feeling in turn would constitute a trustworthy guide to his behavior. When confronted with a challenge such an individual "could permit his total organism, his consciousness participating, to consider each stimulus, need, and demand, its relative intensity and importance, and out of this complex weighing and balancing, discover that course of action which would come closest to satisfying all his needs in the situation."

Rogers is careful to point out that this pattern of personality is a product of his own thinking and work in the field of nondirective counseling. Since many individuals no doubt have approached but as yet never fully reached this high goal, it constitutes an ideal rather than an actual accomplishment. It is, in short, a theoretical model of the type of person who, it is hoped, will emerge from a background of client-centered counseling. It represents a person who is operating freely in all the fullness of his organismic potentialities, a person who is aware of life and its problems and who has the capacity and willingness to meet these problems. The fully functioning person is one who is "ever-changing, ever-developing, always discovering himself and the newness in himself in each succeeding moment of time."

THE CONSTRUCT OF AUTOCORRECTIVISM

Homeostasis is the body mechanism which tends to restore the integrity of the organism following some disturbance of its equilibrium or "steady state." For example, the coagulating process restores bal-

ance after an injury has caused bleeding. The same mechanism is in evidence when the body throws off excessive heat generated by violent exercise. In like fashion the personality maintains its balance or equilibrium through a process called *autocorrectivism*.²²

Persons from whom strict obedience and withdrawn behavior are exacted may, as a result of more or less continuous frustration of their needs for security and a sense of personal adequacy, develop such symptoms as excessive fantasizing, depression, enuresis, or stuttering. Other subjects have manifested such psychosomatic syndromes as bronchial asthma, peptic ulcer, and muscular hypertension, as well as the hysterical symptoms of anesthesia, amnesia, or body tremors without being cognizant of why they are thus handicapped.

The explanation for this state of affairs appears to be that *the subject unwittingly manifests his symptoms in an unconscious effort to reduce certain tensions and further to defend himself against threats to his ego*. In other words, as in the case of the physiological phenomenon of homeostasis, there is a tendency under certain disturbing circumstances (frustration of primary needs) for the individual to retreat into a relatively satisfying psychological "disorder." The psychoneurotic or other syndrome which is manifested is a means by which he protects the integrity of his psychological organization. This defense process has aptly been called *autocorrectivism*, or the tendency automatically to maintain an ego-defense system in the face of frustration.

EXPERIMENTAL EVIDENCE

Darling writes, "The evidence . . . points to a rather clear relation between certain traits of personality and autonomic functions."²³ He attempted to determine whether there is a relationship between certain traits of personality and the more readily measurable automatic reactions of children to startling sensory stimuli. He measured certain physiological reactions (e.g., pulse rate, systolic blood pressure, and diastolic blood pressure) of approximately 100 children in the clinic of the Institute of Juvenile Research in Chicago. Measures were examined in relation to ratings on six traits of personality. The

²² V. E. Fisher, *Autocorrectivism: The Psychology of Nervousness*, Caldwell, Ida.: The Caxton Printers, 1937, Chap. 3.

²³ Ralph P. Darling, "Autonomic Action in Relation to Personality Traits of Children," *Journal of Abnormal and Social Psychology*, 1940, 35:246-260.

subjects were more than eight years of age and each child was rated twice by a psychologist, twice by a psychiatrist, and twice by the investigator himself. The rating scale was of the simple graphic type and contained what were believed to be opposite extremes of six traits placed at the two terminals of an eighty-millimeter line. Darling's results were in substantial agreement with his original hypothesis that there is a correlation between certain traits of personality and autonomic functions. The extremes of the respective personality traits rated were as follows:

Extreme Boldness	Extreme Timidity
Active Cooperation	Active Resistance
Highly Sustained Attention	Extreme Distractibility
Keen Alertness	Somnolence
Hyperactivity	Sluggishness
Unrestrained, Manic or Excited State	Inhibited, Blocked or Withdrawn State

Darling's study indicates in part the reason for believing that a relationship exists between personality pattern or disorder and physiological processes. Since so many psychological disorders are manifested through bodily symptoms, it also appears to strengthen the construct of autocorrectivism. The analogy between homeostasis and autocorrectivism contributes to our understanding of the bodily symptoms and the maladjusted individual's clinging to his symptoms. This would seem to be true because there is an organic unity between what loosely are called psyche and soma (the basis of psychosomatic medicine) and because these somatic symptoms constitute a shield for the psychological disorganization of the individual.

PSYCHOLOGICAL INTEGRITY

If an emotionally disturbed individual should part with his symptoms, he is left unprotected, so to speak, in a situation which to him is intolerable. Everyone seeks to protect his ego and to prevent its "deflation." It appears that there are very few lengths to which an individual will not go to keep intact his sense of personal worth or adequacy. It is the threat of losing one's sense of psychological integrity which in many instances results in a retreat into the protection of a neurosis or even psychosis. The safeguarding of the personality appears to be the principal function of what has come to be called the ego. As Symonds put it,

Basically, the ego has two main functions—namely, to satisfy wishes and to avoid dangers. The better the ego development, the better the chances of gratifying desires and of using the outside world to fulfill wishes. Of the dangers that the ego seeks to avoid, certain ones come from the outside environment while others come from within. The ego avoids traumatic situations, that is, those which contain stimuli of overwhelming intensity in which the usual modes of adjustment fail and to which an abrupt change in previous adaptation must be made. But the ego avoids inner dangers, that is, possible frustration of inner wants and needs.²⁴

The construct of autocorrectivism may explain the difficulties often encountered in the treatment of psychoneurotic and other deviant conditions. It helps us understand why maladjusted individuals resist giving up what appear to be annoying symptoms. Whether unconsciously or otherwise, the individual seems loath to dispense with the phobia, functional weakness, or hysterical anaesthesia, for example, which has served him as an escape (tension-reducing mechanism) from threats to his ego. Since it protects him from certain frustrations, such a person finds relief in clinging to his symptoms.

Because apparently it is a process of "self-rectification" or restoration to at least a secondary (personal) state of psychological equilibrium, as well as a partial relief from conflict or frustration, autocorrectivism functions to maintain the individual's psychological integrity. Whether he engages in rationalization, projection, regression, or outright neurosis or psychosis, the disturbed person maintains at least a modicum of self-esteem and sense of adequacy through the avenue of involuntary (automatic) defense mechanisms of a tension-reducing nature. Since the behavior manifested often brings in its wake both sympathy and freedom from further psychological defeat, it obviously is reinforced and thus "encouraged" to continue. Adjustments of this kind may be said to constitute a *secondary state of equilibrium*, that is, personal but not social adjustment.²⁵

²⁴ Percival M. Symonds, *The Ego and the Self*, New York: Appleton-Century-Crofts, Inc., 1951, p. 25.

²⁵ As one writer has declared, although it does not explain for what men strive or why they create and invent, "homeostasis may well be the common denominator of the . . . ways in which 'security' is sought in aberrant forms of behavior . . ." (Christian O. Weber, "Homeostasis and Servo-Mechanisms for What?" *Psychological Review*, 1949, 56:234-239).

ECONOMY OF BEHAVIOR

An individual's disordered behavior, be it a compulsion neurosis, a conversion symptom, depression, or a psychotic condition, virtually is tailor-made to fit his needs in the sense that it tends to protect him from specific psychological dangers which he faces. The disturbed behavior is, for any particular individual, the most economical way of meeting a difficult situation. Both the character of the frustrating obstacle and the needs or desires of the specific person must be taken into account. A psychological threat which gives rise to a symptom in one person may leave another individual unmoved. Thus economy of behavior is directly related to personal psychological needs which demand fulfillment. As Thetford writes, "A frustrating obstacle to one person may result in a complete disorganization of behavior, whereas another individual may experience the emotional concomitants of the frustrating experience and yet persist at a given task without displaying overt evidence of these emotional responses."²⁶

Knowledge of the source of frustration may explain why a defense mechanism "expands" or "contracts" as needed when the individual finds (unconsciously) a given change of circumstances either protective or necessary to the fulfillment of his primary needs or drives. Economy of behavior thus is related to the magnitude of a pattern of needs (Lewin's vectors within a field of force). For example, a conversion symptom such as fainting spells may decline in severity or disappear altogether if the subject's need for it (as a protective mechanism) is removed through therapy or other circumstances. On the other hand, a mildly psychotic condition may become progressively worse (expand) if the individual's living conditions are such as to continue to frustrate his attempts at satisfying his psychological needs in less withdrawn ways.

An interesting theory has been worked out by Miller which may shed light on the concept of economy of behavior.²⁷ Miller has attempted to develop and refine his theory of conflict with respect to drive. Thus behavior is measured in terms of a drive-gradient. In effect, since by this theory conditions in a given situation contribute to the type of behavior manifested, and because the resulting re-

²⁶ W. Thetford, "An Organismic Approach to Frustration," *Personality Symposium*, New York: Grune & Stratton, Inc., 1951, pp. 1-19.

²⁷ N. E. Miller, "Comments on Theoretical Models," *Journal of Personality*, 1951-52, 20:82-100.

sponses tend to narrow down to the most effective ones, economy of movement is in evidence. Miller's basic assumptions are stated in summary form thus:

(A) The tendency to approach a goal is stronger the nearer the subject is to it. This will be called the *gradient of approach*. (B) The tendency to avoid a feared stimulus is stronger the nearer the subject is to it. This will be called the *gradient of avoidance*. (C) The strength of avoidance increases more rapidly with nearness than does that of approach. In other words, the gradient of avoidance is *steeper* than that of approach. (D) The strength of tendencies to approach or avoid varies with the strength of the drive upon which they are based. In other words, an increase in drive raises the height of the entire gradient. (E) When two incompatible responses are in conflict, the stronger one will occur.

SUMMARY

This chapter examines some of the more fundamental features of the problem of motivation. It first was emphasized that "drives" are a product of both inner and outer forces, viz., of the interaction of the physiological processes and the environment. It was noted, moreover, that motivation is not adequately explained in terms of sheer stimulus and response equations. For even by definition alone there exists a *tone* to motivated behavior. Esteem, aspiration, and achievement, for example, may not be basically inherited motives, but few would deny that a recognizable difference exists among them.

Man is primarily a social animal; thus the direction of his behavior stems from society. Primary needs and drives are, of course, the prime determinants of behavior. But in the course of man's evolution drives of a social nature have arisen.

That much still is lacking in our knowledge of personality dynamics is admitted by virtually all psychologists. The "intangibles" of motivation, or the variables, to use a more operational term, continue to interfere with any precise measurement of need or drive. However, there is available considerable evidence indicating that for all practical purposes the individual behaves in ways determined by his primary and derived drives—however these drives are considered. There is, nevertheless, little reason for believing that any one-for-one relationship obtains with respect to need or drive and its gratification. But it is possible to measure the behavior which takes

place *before* and *after* the drives in question are gratified. Therefore behavior remains the only dependable source of data in connection with the complex problem of motivation. One is, of course, free to infer whatever he wishes from this behavior.

Although knowledge concerning motivation and personality has been derived slowly, in recent years much productive research has been conducted in this field. In fact a good beginning has been made. One of the more positive aspects which has emerged from the study of personality dynamics is the development of certain principles for use in such fields as education, industry, medicine, and psychiatry.

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4

Affective Factors in Personality

HUMAN PERSONALITY is a product of the forces which surround the individual. It is also affected by certain organismic forces called *emotion*.¹ However, emotion is not an innate entity which brings about such "states" as are called, for example, love, fear, and rage. These forms of behavior are believed to be *effects* of specific external stimuli of a nature and intensity adequate for evoking them. The emotion of love, for example, is brought about by satisfying body contacts and by the expressions and actions of others. Anger may be elicited through frustration or by the adverse expressions or actions of another person. That "unpleasant" conditions may affect the individual adversely has long been recognized. The Roman emperor Marcus Aurelius reflected that the consequences of anger are more grievous than the acts which cause it.

THE NATURE OF EMOTIONS

However, emotional behavior is not explained by terms alone. Words denoting affective qualities merely describe a familiar pattern of behavior; they do not account for its origin or nature. It is apparent that except in a secondary sense (one emotion may give rise to another), emotional states are not causal agents. Once they have been aroused, they may set into motion (secondary causation) subsequent behavior of a chaotic or adjustive nature, depending upon the particular emotion involved. Emotion involves widespread visceral

¹ Emotion is the inclusive term which covers the concept of a "highly stirred-up condition" of the organism. It has, however, been subdivided by writers into various emotions (e.g., fear, rage, love, etc.). "Emotion" and "emotions" will not be distinguished in the usage of this chapter.

disturbances, but these disturbances depend upon stimuli for their arousal.

A DEFINITION OF EMOTION

The debate over emotions has not been settled. Traditionally emotion has been harnessed to innate "passions" which impel the individual to act in accordance with their expression. However, physiological research has provided a different view of the subject, a view which includes body functions as well as specific stimuli. Accordingly, emotion may be defined as *a condition within the individual induced by certain external stimuli—involving all of the organismic processes—which tends toward some degree of imbalance*. Such a definition may suffer from circularity, but at least it indicates an approach more in harmony with current knowledge than one which assumes a destiny written at birth. Since emotion involves rational processes, at least to a degree, consciousness is implied in its definition. Whether what is called reason is ever in evidence without some degree of emotion, is questionable. When one becomes angry, he becomes angry for a reason. What may be confusing at first is the traditional belief that emotion is a primary cause of behavior. Emotional behavior may *appear* to be instantaneous—the direct act may be so—but upon analysis there will be found a history of experiences on the part of the individual involved leading up to the emotional reaction. The adult who shuns the dark or becomes fearful in a confined area is very often the former child who was frightened in such situations. "Unreasoning" hatred of a class or group of persons comes by way of experiences leading to the development of prejudice. The potential tensions resulting from the early fears, frustrations, and conflicts to which all of us are heir play a part in our intellectual life. Emotion is a process which colors our behavior.

THE INSTINCT THEORY OF EMOTION

We have not included the once widely acclaimed instinct theory of emotions in our definition because of the general disrepute into which the entire doctrine of instincts has fallen. There are, however, those who still believe that instinct is the key to emotional behavior. McDougall, probably most vocal of all, has expounded the instinct theory, a theory which at least tended to unify our approach to the problem of emotion. However, since it only names rather than ex-

plains the emotions, the instinct theory has been found to be inadequate. And until those concerned can distinguish between instincts and learned behavior there seems little point in exploring the instinct interpretation of emotion.

THE ECONOMY OF EMOTIONS

Emotions are neither causal agents nor primary "drives." As has been indicated, they are the effects of stimuli. As yet, there is no consensus as to the precise function of emotions in body chemistry; they apparently *disturb* the organism, but whether such disturbance is salutary—i.e., a stimulation to such activities as lead to added adjustment—or harmful is still unknown. Some students of the subject regard emotions as biological defense mechanisms. Although such a theory may have been applicable in a primitive society where survival was the reward of the fittest, such an explanation is hardly tenable today. The excessively emotional individual is handicapped in a society in which law and order are guiding principles of behavior.

FEELING AND EMOTION

Emotion is commonly regarded as a highly stirred-up state of the organism involving extensive visceral disturbances. However, whether emotive experience differs essentially from what is called *feeling* is unknown. According to one view, feeling and emotion are relative degrees of the affective phase of experience. If we accept such a "curve" of emotion, feeling may be regarded as a state of body equilibrium marked by a moderate degree of affective tonus. True emotion, then, could be considered a quantitative extension of the feeling experience—that is, more intense or excessive feeling. Thus we may have a *gradient of affect*. A French writer, Dumas,² for example, has divided emotional behavior into three levels: (1) mild emotion, (2) strong emotion, and (3) disintegrative emotion. Each of these affective levels is accompanied by visceral disturbances, the intensity of which is associated in each instance with the type of stimulating situation eliciting it.

Mild emotional shock, for example, involving a moderate increase in intensity of normal physiological functions, was shown by this investigator to follow such stimulating experiences as the threat of being pricked by a pin, seeing broken glass, being exposed to cooked

² G. Dumas, *Nouveau traité de psychologie*, Paris: Felix Alcan, 1932, Vols. I-III.

beefsteak, and the like. *Strong emotions* involve more intense affective behavior as well as violent visceral changes. Marked anger, fear, and joy are accompanied by vivid sensations and usually lead to vigorous bodily actions.

Disintegrative emotions are said to be involved in personality disorders in which frustrations and prolonged conflicts, rather than organic factors, are the causes of the difficulty. Many individuals suffering from psychoneurotic disorders, and even from psychotic states, have developed such conditions in the wake of overwhelming and persistent emotional tensions resulting from the frustration of primary needs. Presumably these emotional experiences leave "traces" which are "stored up" in the individual. But, since stored-up tension must find release, the individual may become the victim of simulated (functional) physical disorders, delusions, hallucinations, or other symptoms of marked personality maladjustment.

Before proceeding further in our examination of emotion as it concerns personality it may be well to inspect the more prominent theories of emotion extant in contemporary psychology. These theories may be listed as follows: (1) *the James-Lange theory*, (2) *the cortico-thalamic-consciousness theory*, including the *theory of emergency* (Cannon), (3) *the psychoanalytic theory*, and (4) *the operational theory of conflict*. Although it includes elements of the other views regarding emotion, the last-named theory represents an attempt to attack the problem of emotion in concrete fashion.

THE JAMES-LANGE THEORY OF EMOTION

Emotions, though unpredictable, are in large part governed by motives which set off behavior but do not determine its intensity. External conditions may turn laughter into tears and love into hatred. The correspondence of motive to emotion is not clear. In general we are able to distinguish the individual marked by tension from one who is relaxed. Emotions set the *tone* of behavior. There are, however, instances of intense emotional excitement which are difficult to detect. Some persons who are stirred up internally (viscerally) are able to manifest a calm exterior.

Common sense—that not always infallible dictator of human affairs—tells us that emotions *follow* a stimulus. For example, a fire alarm

is a motivating force in arousing fear, an emotional state whose intensity may be in inverse ratio to the danger. To resolve the different effects of impulse upon emotion, William James propounded a unique theory. "My theory," he declared, ". . . is that the bodily changes follow directly the perception of the exciting fact and that our feeling of the same changes as they occur IS the emotion."³ It was James's contention that emotions are conscious states initiated directly by the ramified sensations which circulate in the viscera and musculature of the organism—which is to say that a given stimulus generates the syndrome of visceral sensations and these in turn stir up the organism.

If we accept this view we have a clue to different emotional reactions, since emotions are our own *awareness of bodily activity*. This reasoning is consistent with James's basic position that thought and sensation are parts of one unique process and that thinking is impossible without feeling. Thus the alarm of fire may set us to running, a fact which sets into motion all the bodily processes concomitant with this phenomenon. It is our conscious recognition of the operation of these bodily activities which we call fear. On this basis it is possible to say, for example, that we are sorry because we cry rather than we cry because we are sorry, or that we are afraid because we run from a bear rather than vice versa.

In the year following James's revolutionary pronouncement a Danish physician, Lange, came to much the same conclusion (1885). Lange differed only in his emphasis on the circulatory or vasomotor system as the basis of the emotions. The close similarity of the two men's conclusions and the fact that they were contemporaries has given their theory a singular historic unity. Their work has come to be known as the James-Lange theory⁴—the theory which holds that the physiological activities involved in emotion precede awareness of the emotions rather than follow, as is commonly held.

A REVIEW

If the stimulus is the prime factor in physiological change and this change in turn brings about an emotion (conscious reaction) we are

³ William James, *Principles of Psychology*, New York: Henry Holt and Company, Inc., 1890, Vol. II, p. 449.

⁴ C. G. Lange and William James, *The Emotions*, Baltimore: The Williams & Wilkins Company, 1922.

back once more to the Cartesian impasse of dualism. For we must then accept *two* factors in emotional behavior, viz., (1) bodily processes and (2) our awareness of these. This duality modern physiological research has discounted.

What of the difference in emotions? Are we to assume that fear, rage, and love are alike? If so how can we account for the difference in subsequent behavior resulting from these and other emotions.

James and Lange did their pioneer work in the nineteenth century without the advantage of the physiological data available today. The theory is a product of an era which saw Western science struggling with the cloying effects of Victorianism. In fact, the science of the nineteenth century could be described as a controversy between Darwinism and conservatism. Darwin had indicated the need for diagnosing behavior in physiological terms; James and Lange followed this fruitful suggestion.

That the James-Lange theory has proved significant in promoting an understanding of emotion cannot be denied. There is much to be said for James's declaration:

If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its bodily symptoms, we find we have nothing left behind, no "mind-stuff" out of which the emotion can be constituted, and that a cold and neutral state of intellectual perception is all that remains. . . . A purely disembodied emotion is a nonentity.⁵

To James and Lange we owe much of our insight into aberrant behavior.

Bull⁶ differs with the James-Lange theory. She considers affect or felt emotion to be the result of a physiological set or attitude of readiness rather than of experiences themselves. In her view, which grew out of a study involving the use of hypnosis, feeling is midway in the sequence from attitude to action. All efforts to modify the individually felt emotions of her subjects without an accompanying change in posture or organic sensations proved unsuccessful. To quote Bull, "deeply hypnotized subjects could not obey the suggestion prohibiting any change in posture or organic sensation, if they obeyed the suggestion of feeling a new emotion."

⁵ William James, *op. cit.*, pp. 450-451.

⁶ Nina Bull, *The Attitude Theory of Emotion*, New York: Nervous and Mental Disease Monographs, No. 81, 1951.

The subjects experienced conflict with respect to the specific physiological activities related to unpleasant emotional states, but not with those related to pleasurable emotions. From her evidence this investigator concluded that emotion is a function of readiness to act rather than a product of experience.

THE CORTICO-THALAMIC-CONSCIOUSNESS THEORY

Cannon believed that emotion results from the interactivity of the cerebral cortex and the thalamus (diencephalon)—that the answers to the problem of emotion are to be found in the functioning of the motor regions of the brain.⁷

According to Cannon, some type of emotional state must emerge from bodily activity generated by the parallel activity of the central nervous system. He agreed with Lange and James on the patterns of visceral activity incidental to emotional experience. Consciousness of bodily changes during a disturbing experience is implicit in both theories.

However, in Cannon's view the thalamus serves as the distributing agency of exciting stimuli, besides being a differentiator of emotional intensity. The unique quality of a given emotion is thought to be regulated through the diencephalon rather than through any differentiation in the pattern of visceral response—a pattern which, it follows, would be virtually identical for every emotion. The emotions are here thought to be regulated through the particular situational combination of diencephalon and autonomic nervous system activity—not by the legislative action of impulses.

THEORY OF EMERGENCY

It was Cannon's hypothesis that emotion serves as an adjunct to survival, a hypothesis which he justified as follows: Faced with the threat of danger the individual is able to make the needed response through the increased strength which arises from a stirred-up state of the organism. In addition, the activity brought about by emotion

⁷ W. B. Cannon, "The James-Lange Theory of Emotions: A Critical Examination and an Alternative Theory," *American Journal of Psychology*, 1927, 39:106-124. See also by the same author, *Bodily Changes in Pain, Hunger, Fear and Rage*, New York: Appleton-Century-Crofts, Inc., 1929.

helps banish fatigue and makes quick coagulation of the blood possible. Obviously, the organism is thus better fitted to confront a threat to its integrity. This readiness of the organism proceeds as follows: within the organism, but apparently acting as a self-regulating process, is the autonomic nervous system, a complex organization of ganglia paralleling and closely associated (by connecting fibers) with the spinal cord. The autonomic system, it is believed, regulates the functions of heart action, respiration, digestion, blood distribution, and other vital movements. For convenience this system is divided into three branches—cranial (upper section), sympathetic or thoracico-lumbar (middle section), and sacral (lower section). The individual exercises, at least consciously, little or no control over the autonomic nervous system. Its three branches interact to keep the process in balance, and it was this interaction which interested Can-

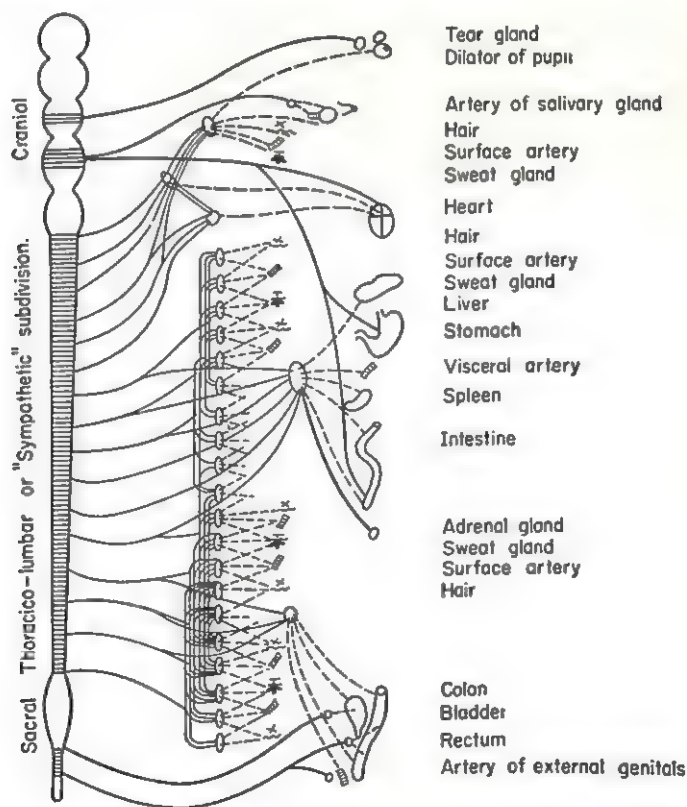


FIG. 2. A SCHEMATIC DIAGRAM OF THE AUTONOMIC NERVOUS SYSTEM. (FROM W. B. CANNON, AMERICAN JOURNAL OF PSYCHOLOGY, 1914, 25:258.)

non. In his researches he noted that although all of the organs and glands of the viscera are involved in the functioning of the three autonomic branches of the nervous system, during any emotional reaction of the organism the sympathetic division apparently prevails. This phenomenon furnished Cannon with experimental data for the cortico-thalamic theory, which includes the theory of emergency as a corollary view.⁸

When stimulated, the sympathetic nervous system innervates the organism to a state of hyperactivity which is characterized by such familiar phenomena as increased heart action, higher blood pressure, and an increased respiratory rate. When, for example, the individual is angry, the adrenal glands secrete the powerful chemical *adrenaline* into the blood stream, thereby causing the liver to release sugar, which is mobilized in the blood stream for quick delivery to needy tissue. Excessive perspiration ensues, the face becomes flushed, and very soon the pulsating organism is prepared to meet the emergency in question with renewed strength and vigor.

EMOTION AND THALAMIC ACTION

In his refutation of the James-Lange theory, which holds that specific emotions are caused by visceral patterns of disturbance, Cannon asserted that emotions are a product of the interactivity of the cerebral cortex and the thalamus or diencephalon. For example, a sensory channel such as the eye, when stimulated by an exciting event, causes the resulting new impulses to be relayed to the thalamus (directly or indirectly by way of the cortex). In the thalamus these impulses are redirected both to the autonomic system, which governs the arousal of the glandular and smooth organs of the viscera, and to the cortex of the cerebrum—either through direct connection or by a process of irradiation—where the “feeling” or, more precisely, the intensity of the emotion is presumably registered. Cannon maintained that the emotion proper and its bodily expressions occur at about the same time.

Theoretically, then, it must be assumed that nerve impulses can be relayed almost simultaneously in two directions—a phenomenon of nerve transmission which makes possible an emotional experience

⁸ The cranial and sacral divisions (the cranio-sacral branch) of the autonomic system are credited by some investigators with being in control when the organism is undergoing neural gratifications incidental to feeling, aesthetic sexual activity, and general organic equilibrium (freedom from neural tension).

without the supposedly indispensable bodily disturbances, as both James and Lange had suggested.

To test the hypothesis that emotional states may take place without the presence of bodily sensations, Cannon removed the sympathetic branch of the autonomic nervous system in a number of cats. He reasoned that, since the sympathetic branch prevails during emotional intensity, all normal sensations from the viscera would be halted. Despite this loss, however, all of the cats demonstrated the usual manifestations of emotion when confronted with a barking dog. The animals apparently were angered by the dog's presence since they spat and bared their teeth. Evidently the removal of the sympathetic branch from the autonomic nervous system of the cats did not interfere with their emotional behavior.

The James-Lange theory does not distinguish the visceral intensity of a given emotion. Cannon, in turn, submitted that it is the diencephalon which influences the quality of emotional experience. As he wrote, "The theory [of the neural organization of an emotion] which naturally presents itself is that *the peculiar quality of the emotion is added to simple sensation when the thalamic processes are roused.*"⁹

A series of experiments by the English physiologist Charles S. Sherrington did much to bolster Cannon's views regarding the influence of the thalamus in emotion.¹⁰ Sherrington operated on a number of dogs to ascertain what effect the severance of the brain from the body organs of the trunk would have on their subsequent behavior. This separation was accomplished through transection of the spinal cord in the neck region. It was assumed that sensations from the viscera and skin were totally eliminated and that only the sensations arising from stimulation of the face, head, and neck region would be in evidence. Despite this apparently overwhelming loss of sensation from both skin and body, the dogs' emotional behavior appeared to be unaffected. For example, one dog growled and bared her teeth at an attendant, manifesting the usual signs of anger, and showed affection for an individual who had been kind to her. Emotional experience had occurred despite the loss of bodily or visceral sensations.

⁹ W. B. Cannon, *loc. cit.*, p. 120.

¹⁰ C. S. Sherrington, *The Integrative Action of the Nervous System*, New Haven, Conn.: Yale University Press, 1906.

EVIDENCE FROM PSYCHOSURGERY

The lobotomy is a technique by which the communication fibers between the prefrontal portions of the frontal lobes and the thalamus (more specifically with the dorsomedial nucleus) are severed sub-cortically. This operation is performed on the assumption that the brain contains some representative aggregate traces of experiences which have been concerned with the shaping of personality. The results secured from lobotomies on human subjects have indicated, to some investigators at least, that these representations or traces are situated in the frontal lobes of the brain.

Cannon believed that his removal of the entire sympathetic branch of the autonomic nervous system from his cats bore out his contention that bodily states are not essential to certain emotional reactions. In short, he was convinced that activities in the thalamic region of the brain are the primary feature in emotional behavior. Cannon even suggested that the cortex is dispensable since, upon its removal, animals still evidence emotional behavior. From these considerations three alternate hypotheses emerge: (1) that the thalamic processes function autonomously to control emotion, (2) that emotion is a product of the total brain process, and (3) that emotion results from the reaction of the total organism.

The first hypothesis is invalid, since it is generally conceded that the brain reacts as a whole. The second hypothesis is substantiated by an initial report on a series of lobotomies (performed on 20 patients by Cloward) by Porteus and De Monbrun Kepner at the territorial Hospital for Mental Disorders, Kaneohe, Territory of Hawaii. These research workers write:

The effects of lobotomy lend strong support to the contention that we should put the emphasis on interaction rather than control. It is most significant that cutting the cortico-thalamic fiber radiations does not by any means open the flood gates of emotion. Evidently, if there is a controlling mechanism, it can operate otherwise than through the cortico-thalamic connections. In certain cases the reverse process to release of emotion is observable. Impulsive, excitable reactions become less apparent in behavior.¹¹

The third hypothesis has gained wide support and in the opinion

¹¹ S. A. Porteus and R. de Monbrun Kepner, "Mental Changes After Bilateral Prefrontal Lobotomy," *Genetic Psychology Monographs*, 1944, 29:5-115.

of many students of personality seems the most logical. This view has been accepted by Goldstein as a result of the systematic examination of more than 2000 patients suffering from some form of skull or brain injury incurred through gunshot. Detailed records regarding the patients were kept for ten years. Goldstein proposes that "in the new approach many symptoms are seen as expressions of the change which the patient's personality as a whole undergoes as a result of disease, and also as an expression of the struggle of the changed personality to cope with the defect and with demands it can no longer meet."¹²

A REVIEW

As might be expected, Cannon's theory has given rise to much discussion and controversy among other students of emotion. Leeper, for example, goes so far as to assert that Cannon's work has been incorrectly interpreted, and believes that the theory of emergency implies that emotional behavior is an organizing and mobilizing process which helps prepare the individual to withstand potentially damaging experiences.¹³

Alpers presents additional evidence presumably confirming the view that the hypothalamus is a focal point for the excitation and integration of the sympathetic nervous system effects as outlined by Cannon.¹⁴ In his summation of the results of pathological lesions in the hypothalamus associated with personality, Alpers lists the following four clinical features: (1) emotional changes, (2) intellectual deficiency, (3) personality disorders, and (4) psychotic manifestations. Because patterns of behavior associated with lesions in the hypothalamus have been noted in the case of lesions in other areas of the brain, he believes that the hypothalamus is one of a series of "stations" involved in emotional experience. Conversely, damage to other regions of the brain in some instances results in disorders of behavior usually associated with hypothalamic trauma. Such evidence would

¹² K. Goldstein, *Aftereffects of Brain Injuries in War*, New York: Grune & Stratton, Inc., 1942, p. 69.

¹³ R. W. Leeper, "A Motivational Theory of Emotion to Replace Emotion as a Disorganized Response," *Psychological Review*, 1948, 55:5-21.

¹⁴ B. J. Alpers, "Personality and Emotional Disorders Associated with Hypothalamic Lesions," *Research Bulletin of the Association for Mental and Nervous Disorders*, 1940, 20:725-752. See also S. W. Ranson, "Somnolence Caused by Hypothalamic Lesions in the Monkey," *Archives of Neurology and Psychiatry*, 1939, 41:1-23.

tend to expand Cannon's theory of the hypothalamus as a primary agent in emotional behavior.

Kennedy, in his discussion of the medical syndromes (patterns of behavior) associated with the hypothalamus, maintains that the hypothalamus is involved in some degree, at least, in the control of such vital processes as the regulation of the rhythm of breathing, constancy of pulse beat, cycle of sleep, and the like.¹⁵ The hypothalamus seems involved, even if indirectly, in emotional behavior through its association with the physiological processes underlying such behavior.

Cohen, a specialist in neuroendocrinology, lends more authority to Cannon's theory. He holds that the work of the adrenal cortex, as it relates to the sympathetic nervous system, appears to be redundant.¹⁶ Cohen sees flaws in the theory that adrenaline (the secretion of the adrenal medulla) maintains an effective rate of activity or rhythm in the sympathetic nervous system. To bear out his criticism of the theory of adrenaline as a "constantly secreted tonic" for the sympathetic nervous system, Cohen cites the evidence gained from destruction of the adrenal glands. Such destruction leads to reduced blood pressure and other "sympathetic failure" only after a period of hours or days. On the other hand, circulating adrenaline becomes ineffective almost immediately. Furthermore, it has been demonstrated, writes Cohen, "that an animal can survive without apparent hardship in protected environments with neither an adrenal medulla nor a sympathetic nervous system." This circumstance "renders, retrospectively, the whole polemic against Cannon's 'emergency theory' somewhat absurd."¹⁷

Experiments on transection have demonstrated, as Cannon maintained, that apparently the diencephalon is the key influence in emotional behavior. Certainly the sympathetic nervous system tends to be self-regulating in many respects, and while no one would deny the effects of adrenaline upon it, there is reason to believe that emotional states are a matter more of cortical than of adrenal activity.

¹⁵ F. Kennedy, "Medical Syndromes of the Hypothalamus," *Research Bulletin of the Association for Nervous and Mental Disorders*, 1940, 20:864-874.

¹⁶ L. H. Cohen, "Neuroendocrinology," in G. M. Piersol (Ed.), *The Cyclopedia of Medicine, Surgery, Specialties*, Philadelphia: F. A. Davis Company, 1955, Vol. V, pp. 72-104.

¹⁷ *Ibid.*

Arnold, however, takes issue with Cannon's theory of emergency.¹⁸ Instead of emotional behavior being associated with unitary visceral activity, this writer believes that it involves *cortical* impulses which probably travel along subcortical pathways. Cannon's theory, says Arnold, by its very nature would have to set forth some mechanism of cortical inhibition; that is, it would need to include some means by which to regulate cortical activity in order to maintain emotional equilibrium at all times. Apparently Cannon failed to take into account the need for such a mechanism. According to Arnold, emotion is an *excitatory* phenomenon which is unitary ". . . but can be analyzed into at least two divisions, fear and anger, which are transmitted over separate cortico-thalamic pathways, touching off different hypothalamic effector systems, and producing different physiological effects."¹⁹ This explains why disruptive effects are seen in some emotions and not in others. Though fear and anger tend to disrupt the equilibrium of the organism, yet because they bring about parasympathetic excitation (which improves the general functioning of the organism) moderate excitement (in which could be included "outgoing affection" and interest) is beneficial. Remembering an automobile accident can involve cortical impulses which give rise to emotional experiences—turning pale and experiencing unpleasant sensations in the body generally. Yet there is no sense of emergency here.

In contrast, Ax found evidence for significant differences between fear and anger as manifested in the emotional behavior of 43 adult individuals.²⁰ His data emphasize the presence of the unitary visceral excitement type of response which Cannon had advanced. Cannon's theory of emergency is debatable because emotional behavior occurs despite the absence of any real threats to survival. It hardly is likely that any proof could be marshaled for the view that emotion is a "vestigial remnant" of primitive times. Despite all this, and including Lashley's declaration that he could find no evidence for the thalamic explanation of emotion,²¹ Cannon's work has proved ex-

¹⁸ M. B. Arnold, "Physiological Differentiation of Emotional States," *Psychological Review*, 1945, 52:35-48.

¹⁹ M. B. Arnold, "An Excitatory Theory of Emotion," in M. L. Reymert (Ed.), *Feelings and Emotions*, New York: McGraw-Hill Book Company, Inc., 1950, p. 30.

²⁰ A. Ax, "The Physiological Differentiation Between Fear and Anger in Humans," *Psychosomatic Medicine*, 1953, 15:433-442.

²¹ K. S. Lashley, "The Thalamus and Emotion," *Psychological Review*, 1938, 45:42-61.

tremely valuable in furthering our knowledge of the physiological processes involved in certain patterns of behavior.

Whereas James and Lange believed that consciousness itself, as it ties in with bodily processes, constituted the emotion, Cannon insisted that it was the interactivity of the diencephalon and the cerebral cortex which produced emotion. The theory of behaviorism, expanded by Watson's work with infants, bypassed consciousness in favor of reflex action. The psychoanalytic theory of emotions differs from all of these theories in its emphasis upon the libido and patterns of frustration in infancy.

THE PSYCHOANALYTIC THEORY OF EMOTION

ENVIRONMENTAL FORCES AND EMOTION

The psychoanalytic theory holds that emotional behavior is a subtle product of the interweaving of the individual with his environment. More often than not this relationship of the individual and his environment, particularly in infancy, is marked by more or less continual frustration and tension. According to some theorists, the process of living itself is one which tends toward personality imbalance. Behavior and cultural requirements are rarely synonymous in a given social group. Purely rational behavior is an extremely unlikely phenomenon. We may, however, distinguish rational behavior from the irrational by a sense of balance on the part of the individual in satisfying the needs imposed upon him. Thus, for example, the rational man will not torment himself concerning conditions that are far removed and out of his control. Again, the balanced person will not dislike all mankind because of an injury one person perhaps may have done him. In short, the rational act is one which is based upon logical considerations.

Thus for the psychoanalyst, emotion, shot through with sex implications, is largely a product of external forces. Emotional instability is occasioned by the sanctions of a social milieu, the very essence of which is domination—a condition which tends to frustrate the individual throughout his lifetime. As Menninger says:

The great frustration which the modern child in civilized society suffers is not entirely due to the rigid curbing of his natural pleasures and unsocial habits; it results also from the fact that he is deprived

of the extra supply of love which his sacrifices require. A restriction imposed upon him may be demanded by society, but when it is accompanied by expressions of the parents' hostility toward him and re-enforced by their resentment of his intrusion upon their comfort, it is small wonder that the child reacts with bitterness and confusion. Under these discouragements, some children give up altogether the idea of attaining adulthood and become irresponsible weaklings.²²

Menninger (and others with the same point of view) suggests that organized societies somehow are the cause of frustration. While we must concede the logic of the psychoanalytic position with respect to the frustrations brought about by a regulating body we must also bear in mind the nature of all societies. The "higher" the organization, the greater its restrictions. The alternative would appear to be confusion or even anarchy. Even a completely democratic society, no matter how nobly conceived, would act as a restraining influence upon its members. Individuals living en masse require rules of conduct to perpetuate their group.

The fact that the requirements of group life have been largely overlooked vitiates the findings of some psychoanalytic investigations. As Lippitt says:

... we have been relatively unsuccessful in attempting to leap from personality test analyses to social behavior in the group situation. The results have been very disappointing and we are inclined to believe that a large area of intervening personality variables related to social functional personality will have to be measured and conceptualized before we are able to close many of the existing gaps between our understanding of group dynamic determinants of behavior and intrapsychic determinants of behavior.²³

SOCIAL MORES AND EMOTION

To belong to any society means to conform to the mores of that society or else be punished or ostracized. Societies also insure the socialization of their members through rewards for success which are a strong inducement to engage in socially acceptable behavior. La

²² Karl Menninger, *Love Against Hate*, New York: Harcourt, Brace and Company, Inc., 1942, p. 24. Menninger amplifies the present difficulty of rearing children by writing, "Civilization demands more thwarting of immediate gratifications than does savage life; and although, in theory, it offers more compensations, these are surely not apparent to the child in his first years of life" (*ibid.*, p. 23).

²³ R. Lippitt, "Group Dynamics and Personality Dynamics," *American Journal of Orthopsychiatry*, 1951, 21:18-31.

Piere and Farnsworth believe that "... social controls induce the individual to repress deviant attributes which should not be expressed in situational circumstances or to behave overtly in ways which are situationally required but do not stem directly from an established attribute of his personality."²⁴

The frustration produced by society's controls, hidden and distorted though it may be, often filters through into consciousness and becomes manifested in erratic behavior and bodily symptoms. And it is at this very point that the psychoanalyst seeks to determine the causes of emotional instability, utilizing projective techniques to pry out of the conscious those unconscious but emotionally charged libidinal materials which are assumed to be responsible for the aberrant behavior.

For the psychoanalyst, emotion is the clue to the unconscious and thus to the disturbing elements within it. To quote Freud,

The oldest and best meaning of the word "unconscious" is the descriptive one; we call "unconscious" any mental process, the existence of which we are obliged to assume, because, for instance, we infer it in some way from its effects—but of which we are not directly aware. . . . We call a process "unconscious" when we have to assume that it was active *at a certain time*, although *at that time* we knew nothing about it. This restriction reminds us that most conscious processes are conscious only for a short period; quite soon they become *latent*, though they can easily become conscious again.²⁵

It is only because our repressed experiences "go underground" that we cannot recognize them. Subsequent emotional behavior provides the clue to the nature of these repressions, but alone does not reveal the traumatic experiences as such. The psychoanalyst must piece together the pattern which binds the two. Emotion is a condition *within* the organism occasioned by psychological trauma and thus difficult to perceive unless there is insight into the causes of the trauma. It is by penetrating into the unconscious that patterns of frustration are revealed to the psychoanalyst, who then begins his therapy.²⁶

²⁴ R. T. La Piere and P. R. Farnsworth, *Social Psychology*, New York: McGraw-Hill Book Company, Inc., 1949, p. 266.

²⁵ Sigmund Freud, *New Introductory Lectures on Psychoanalysis*, New York: Carlton House, 1933, pp. 99-100.

²⁶ One of the contemporary spokesmen of psychoanalysis, Professor Flügel of the University of London, has expressed the belief that the very moral code of civilized societies depends upon emotional balance, since this code of morality is "determined

A REVIEW

The same criticism may be directed against the psychoanalytic theory of emotion as that frequently directed at psychoanalysis itself: As a theory of inferences built around several fundamental facts of behavior it has little or no means of verification. Many students believe that the inferences have been carried further than is warranted by the evidence. Inferring from emotional behavior the traumatic experiences which presumably underlie it ignores the effect of man's immediate surroundings. However, it is to psychoanalysis that we are indebted for two significant contributions to an understanding of personality: (1) the knowledge derived from their investigations of the effects on personality of considerations of sex, and (2) the fundamental significance of early experience in later emotional behavior. Much may be overlooked regarding the theory in exchange for these two distinctive contributions to our knowledge of personality development as it relates to emotional behavior.

SUMMARY

The theories of emotion thus far discussed all still maintain some standing in academic circles. Each has contributed to our understanding of the nature of emotion. The now generally accepted view is that emotion is a dynamic process involving activity on the part of virtually all aspects of the organism, and that consciousness, no matter how defined, is a necessary component of the emotive process. Garrett, perhaps, makes the point clear when he writes that

... as a result of experimental attack there is a respectable body of knowledge regarding the physical emotions. Much is now known about the nervous and physical basis of emotional states: many of the complex physiological, circulatory and electrical changes accompanying emotions have been measured; and techniques have been developed for investigating the causes of certain abnormal emotional states. A great deal remains to be done. Future research will further

by our biological nature and our innate psychological equipment" (p. 16). If (according to Flügel) we cannot act rationally, i.e., in an emotionally balanced way, we will transgress against those values which as social laws make up morality. "Our need for the approval of our fellow beings, for the feeling that we are accepted by society, is indeed probably to a very large extent a continuation into adolescent and adult life of the young child's need for the approval of his parents, while the anxiety and despondency caused by the sense of being outcasts from society corresponds similarly to the infant's distress at losing their love and support" (p. 56). (J. C. Flügel, *Man, Morals and Society*, New York: International Universities Press, 1945, pp. 56-57.)

define and differentiate emotions both on the psychological and physiological side. And genetic studies will aid in showing how emotions develop, how they become organized, and possibly, how they may be better controlled for the benefit of the individual and of society.²⁷

CONFLICT: AN OPERATIONAL THEORY OF EMOTION

Many psychologists see conflict as the essence of the disturbed personality. For it is the constant struggle each individual makes to adapt himself which in a sense constitutes a conflict. In the normal personality a balance is maintained which tends toward adjustment. In the disturbed personality this balance is set askew. And it is at this point that emotion (Dumas' disintegrative emotion) takes over. Such emotion is an inevitable facet of a personality disorder. To isolate such emotion in the maladjusted person obviously is out of the question. However, research has disclosed the intimate relationship between emotion and the other factors of, for example, the neurotic personality.

Emotion is the product of a variety of forces. Society provides the stimuli which spark the emotion, which then involves visceral and cortical activity—in fact, all of the bodily processes. It is the environment (or rather certain stimuli within the environment) which generates the motor and other behavioral reactions.

If the individual is frustrated, that is, fails to satisfy his primary needs or drives, certain results are inevitable. It is the individual's awareness of his frustrations which leads to the states called emotional, e.g., anxiety and depression. Ordinarily the individual expresses his emotions, but there are occasions when he finds it impossible to do so. Then we see the familiar manifestations of the disturbed personality, viz., distorted features, heavy breathing, restlessness, and the like. Thus do our surroundings influence our behavior. If we cannot adapt ourselves to them, then conflict arises.

Conflict may be variously described. Some would say it is the result of an individual's inability to meet the needs of his society and others see it as an inability to satisfy basic wants, or the maintenance of incompatible wants. Those who accept the James-Lange

²⁷ H. E. Garrett, *Great Experiments in Psychology*, New York: Appleton-Century-Crofts, Inc., 1951, p. 169.

theory must believe that conflict is created by the individual's helplessness in controlling his own awareness of the bodily activities associated with emotion. Cannon's followers see conflict as the result of the actual impairment of the integration of the impulses of the nervous system which direct emotional behavior. Because the psychoanalyst regards the libido as the source of emotion, he sees the source of conflict in the denial of certain free forms of expression.

Conflict evidently involves an interactive process. However, if personality is influenced by the society in which one lives, we have a genuine clue to the factors which play a paramount role in emotional behavior. From this clue certain implications are apparent. We should ascertain whether there is any possibility of a readjustment of the disturbing social prescriptions involved. Plant put the case as follows:

If the content of the personality is affected by the cultural pattern and if through changes in the pattern, we have the easiest approach to changing the personality, certain implications follow. Sections of the cultural pattern can be changed; they have been and are being changed. This implies a procedure which may be simply set forth though it might be long and tedious of execution. The first step is to discover, by use of the casual breakdown, what the cultural pattern in its various phases means to the individual and his growth. As more is known of the imprint which the various sectors make upon the personality, the door is open for conscious social alteration—in part as a check upon the early findings, in part to bring about those more "favorable" elements which we desire.²⁸

THE PLACE OF THE "SELF"

With a highly technical social order, and the dead weight of the past so evident in many of its institutions, the reasons for personality conflicts are apparent. Specialization and taboo are hardly conducive to a life of equanimity. Many an individual, hard-pressed in such surroundings, eventually makes some kind of highly emotionalized response. Thus emotion in great measure is a part of the *self*, the inner psychological organization of the individual. What then is the role of the self in emotion as this emotion is touched off by the environment? "Emotions are responses to environmental influences and at the same time signs of what goes on in the responding

²⁸ J. S. Plant, *Personality and the Cultural Pattern*, New York: The Commonwealth Fund, Division of Publications, 1937, p. 240.

person," writes Kanner. "The meaning and understanding of any sort of emotional behavior are determined fundamentally by the setting in which it occurs, the manner in which a person is involved or feels that he is involved, his previous experiences with similar situations, his previous reactions to similar situations. . . ." ²⁹

The self thus may be designated as the individual's unique repertoire of responses. But the fact that there are differences among individuals only underscores the individuality of emotion. Therefore, it is perhaps more logical to say that there are no emotions per se, only *individual emotional reactions*. Thus far in our discussion we have tended to emphasize the role of external stimuli. It has not, however, been our intention to neglect that part of the individual which has come to be called the self. Much of the literature on personality is devoted to its cultural aspects; in fact, there are those who have insisted that even the formation of the self is a function of the environment. In such a view personality is devoid of meaning divorced from environmental considerations, and these considerations become the primary source of research data. Murphy, who has done much to foster the biosocial view of personality, emphasizes the primary role of environment. He sees personality in terms of "organization," a concept which

involves, first of all, the transmission of energy from one region to another, second, the simultaneous passage of energies in various directions in an interdependent fashion . . . third, the consequent adjustment of one part to another, the constant regularizing effect of tissues upon one another, of which homeostasis or the maintenance of constancy is one aspect. Finally, organization involves not only interstimulation of parts but response of the separate parts of the whole system to outer stimulating forces. ³⁰

There are, however, others who believe that the self, the "I," is more than the function of organized properties. Personality is a unified process, but individuals differ. It is this individuality, although not independent of society, which is the concern of some students of personality. Reinhardt, although he believes that culture as well as the individual's habits of living are built upon a hereditary

²⁹ Leo Kanner, "Behavior Disorders in Childhood," in J. McV. Hunt (Ed.), *Personality and the Behavior Disorders*, New York: The Ronald Press Company, 1944, Vol. II, p. 771.

³⁰ Gardner Murphy, *Personality: A Biosocial Approach to Origins and Structure*, New York: Harper & Brothers, 1947, p. 39.

base, finds that the very complexity of human behavior has made it difficult to measure it effectively. This difficulty rests on the fact that "... the possibilities of inheritance within the limits of the human situation are almost infinite. The hereditary type in each case is a result of particular combinations of gene determinants. These genes may combine in millions of ways."³¹

Two aspects to emotional behavior are generally acknowledged: (1) the external stimuli in the environment and (2) the unique quality of each person's responses to these stimuli. Allport has recognized these qualitative differences in personality, contending that a real self does exist. For him, emotions bear the imprint of the individual. It is this distinctiveness of emotional response which, according to some investigators, points to the presence of a self. For example, Frenkel-Brunswik, in analyzing the concept of motivation, studied 150 students in a coeducational public school. This investigator based her study on such *drive-items* as "Social Ties," "Achievement," "Recognition," and "Aggression." Her findings, she concluded, "may be regarded as evidence that drive ratings genuinely indicate dynamic states within the subject rated, rather than mere reflections, explicit or implicit, of notions existing only in the heads of the raters."³²

THE INDIVIDUAL NATURE OF EMOTIONAL RESPONSES

The proof that emotion is an individual matter lies in the different responses made to the same situation. Whereas one individual is moved to tears by some event, another person remains unaffected. There are as many environments as there are individuals. External stimuli activate the organism to respond, but not all responses have an equal probability of recurrence even in the same individual. There is a *hierarchy* of responses; some kinds of behavior take precedence over others. Thus considered, individuality in response and the intensity of emotion may be more easily understood. As Miller and Dollard write, "For each primary drive, there is an innately determined preferential order, which we have called the *innate hierarchy*. In many instances, such as the flexion reflex which pro-

³¹ J. M. Reinhardt, *Social Psychology*, Philadelphia: J. B. Lippincott Company, 1938, p. 39.

³² E. Frenkel-Brunswik, "Motivation and Behavior," *Genetic Psychology Monographs*, 1942, Vols. 25-26, pp. 125-265. (*Italics are the author's.*)

duces withdrawal from painful stimuli, the dominant response in the hierarchy is likely to avoid the strong stimulus . . . Different strong stimuli have an innate tendency to elicit different responses.”³³

The recent neglect of the self in the study of emotional behavior is especially puzzling in the light of the primary role individual variation played in the rise of psychology. To consider environment as the only factor in emotion is to overlook its intensely personal nature.

We do know, even if only by our defined acceptance of it, that each individual reacts differently from his fellows to his surroundings. Furthermore, he reacts differently at different times to the same stimulus. And yet there are patterns of behavior. The aggressive individual sees obstacles in his path as a personal challenge. The same obstacles cause the timid personality to withdraw. Each human being responds in some way to his environment and this response springs first of all through his senses. Even the “unconscious” is a product of previous experience. The self, then depends upon the data of the sense apparatus, data which we must assume are derived from the environment.³⁴ In this way *we avoid considering the self as a disembodied entity or substance.*

CONFLICT—THE KEY TO EMOTION

We can summarize the discussion regarding emotion by considering conflict as a condition occasioned by the individual striving within his milieu to make adjustments, a situation which is limited both by type of environment and by the individual structure of the organism. If the conflict becomes too great, disturbances of one kind or another ensue—the individual is maladjusted.

Psychologists generally are agreed that maladjustment arises from prolonged conflict. We must measure this conflict in its total setting, by studying both the individual and his society. That each person meets the stimuli of his environment in his own particular fashion in no way vitiates the theory of conflict.

To prevent a personality disorder is a much higher ambition than to correct it. Understanding emotion is one of the keys to the pre-

³³ N. E. Miller and John Dollard, *Social Learning and Imitation*, New Haven, Conn.: Yale University Press, 1941, p. 69.

³⁴ G. W. Allport uses the words intuition and inference in analyzing the self. But it is difficult to see how anything can be inferred without a foundation of experimental data.

vention of personality disturbances, a key which in sympathetic and skillful hands can do much to reduce the incidence of psychological maladjustment. If we are to prevent personality disorders we must be aware of their etiology. If we can ascertain the factors, both in the environment and in the individual, which predispose toward what has been designated as deviate emotional behavior, we will have accomplished a noteworthy task. If we can correctly judge which of these factors operate in the interaction of personality and organism we have secured data suitable for use in the prevention of psychological disorders.

PRINCIPLES GOVERNING EMOTION

To plumb the mystery of personality development, the noted naturalist, Charles Darwin, sought for evidence in his theory of survival. Facial gestures, he wrote in his *Expression of the Emotions in Man and Animals* (1872), are vestigial reminders of man's evolution.

A few years before, Charles Bell, the English anatomist, had advanced the view that facial expressions not only are indicative of the emotions but have a pragmatic value, e.g., the enraged animal whose snarling helps expose his fangs. However, Bell later amended his original position and concluded that certain muscles in the human species serve no other purpose than that of portraying emotion.

Darwin insisted that all facial expressions were—or had been at some previous stage of evolution—of some service to given species.³⁵ To buttress his belief he outlined three major principles which, according to him, govern emotion. These may be presented as follows:

1. *Serviceable Associated Habits.* There remain in man many vestigial expressions, remnants as it were, of the primitive years of the species. According to this principle, some complex actions are related directly to the satisfaction of certain mental conditions. Whenever this state of affairs is present “. . . there is a tendency through the force of habit for the same movements to be performed, though they may not be then of the least use” (p. 28).

2. *The Principle of Antithesis.* “Certain states of the mind lead to certain habitual actions—when a directly opposite state of mind is

³⁵ Charles Darwin, *Expression of the Emotions in Man and Animals*, New York: Appleton-Century-Crofts, Inc., n. d.

induced, there is a strong and involuntary tendency to the performance of movements of a directly opposite nature, though these are of no use . . ." (p. 28). Thus, contrasting drives will tend to induce opposite movements. Darwin presents the example of a dog which, when he sees a stranger, has his fangs bared, his ears pressed against his head, and displays other phenomena associated with readiness to attack. Once the animal sees that the stranger in reality is friendly, the opposite movements come to be manifested. He no longer snarls, his ears are raised, etc. "Not one of the above movements," Darwin wrote, "so clearly expressive of affection, are of the least direct service to the animal" (p. 51).

3. *Action of the Nervous System.* This principle relates to the effect of the excited nervous system on the body of the individual. As the nervous system reaches a state of tension the direction of its energy is controlled as it flows into the motor system. "When the sensorium is strongly excited, nerve-force is generated in excess, and is transmitted in certain definite directions. . . . Effects are thus produced which we recognize as expressive" (p. 29). The most common example of this principle is muscular activity, i.e., trembling associated with a disturbed "state of mind."

Whether Darwin's ingenious explanation can ever be empirically verified is open to debate, since one would of necessity be required to accept his theory of evolution with it. If one grants that man has evolved from a lower species, he can perhaps see how many expressive movements may have persisted in his repertoire of reactions.

The first principle is logical enough, since many facial expressions—particularly on the infrahuman level—are of practical value. It still is the case, as it was in Darwin's time, that nerve fibers are highly sensitized during periods of excitement. When we laugh or cry, for example, a state of excitability is in evidence even after the laughter or tears are gone. Whether these expressive movements are vestiges of man's earlier existence is a matter of opinion.

The second principle, that of antithesis, might be explained today in terms of our own reactions to the conventions of society. If the dictates of the social mores are such that we must smile even when we dislike a person, the expressive movements connected with dislike are set in opposition to those attached to the smile. But it is doubtful whether expressive movements due to the principle of antithesis are inherited.

The third principle of direct action is, of course, a familiar phenomenon. War has shown with terrible force how muscular reactions have set in both before and after battle. Trembling is evident in most experiences of an acutely nervous nature. There are, however, exceptions to this rule, i.e., individuals who do not tremble with fear or rage, but who, on the contrary, in some instances very nearly are frozen into immobility.

Darwin's belief "that the chief expressive actions, exhibited by man and by the lower animals, are now innate or inherited,—that is, have not been learned by the individual . . ." (p. 350) would be challenged by contemporary psychologists. Investigators today generally are agreed that although apparently there is a relationship between emotion and expressive behavior, such behavior need not be regarded as being inherited. Different cultures have been associated with different expressive movements and there is evidence for believing that many such expressions are learned. For example, certain cats have been conditioned to live amicably with mice, and these cats have not manifested "instinctive" reactions of attack upon seeing mice other than those with which they had been raised.

EXPERIMENTAL EVIDENCE

DARWIN

Darwin experimented with the principles he had laid down. He presented photographs to a number of people, who were asked to recognize the emotions presumably represented in these photographs. Each photograph was judged by all of the subjects. The answers, not too surprisingly perhaps, varied. There was almost complete agreement regarding some of the emotions; in the case of others there was very little. Darwin concluded, however, that the fault, if any, was in the photographs and not in the judges' perception. He did admit that suggestibility was a factor in judgment, since he himself had been informed of the nature of the different emotions in the photographs before seeing them.

Darwin's admission is a significant one. For it attests to the importance of learning. As Hume had suggested centuries before Darwin, that which we come to accept as natural many times may be mere habituation. Thus laughter is a construct, the term itself being a "convenient fiction" for an expression or movement which we have

come to associate with a certain "state of mind." But to advance a one-for-one theory of correlation, e.g., "happiness-laughter," "sadness-tears" is sheer hypothesizing. Happiness does not always bring about laughter, nor sadness tears. It is very possible that years of living in a particular culture impress on us certain expressive activities. Men may have trembled in the days of cave living, but this does not require us to believe that trembling is a relic of those fear-ridden times.³⁶

Anthropologists have noted expressive actions which they consider to be direct outgrowths of different cultural influences. Klineberg writes:

This does not mean that all emotional expression is to be regarded as artificial and flexible to the same degree as spoken language. Apparently all degrees are possible. At the one extreme we have the crying of the child in pain—an expression common to all individuals no matter what their culture. At the other extreme we have the language of the emotional expression on the Chinese stage, in which standing on one foot means surprise, and fanning the face with the sleeve means anger.³⁷

WATSON

Watson simplified the problem of expression through his arbitrary limitation of emotional behavior to fear, rage, and love. These fundamental emotions, he declared, are discernible to the observer and may be substantiated in the infant simply as follows: Since all behavior is learned, i.e., conditioned, to evoke the expression of fear we need only frighten the infant with: (1) loud sounds, (2) loss of support, or (3) both of the preceding stimuli. To see the infant express rage we need but restrain his movements. And finally, as expressive behavior, love can be evoked through patting or stroking the erogenous areas of the infant's body.

Fear, according to Watson, involves "compliant" emotion, rage "dominant" emotion, and love the emotions of "inducement" and

³⁶ LaBarre states the matter as follows: ". . . even if the physiological behavior be present, its cultural and emotional functions may differ. Indeed even within the same culture, the laughter of adolescent girls and the laughter of corporation presidents can be functionally different things; so too the laughter of an American Negro and the white he addresses" (W. LaBarre, "The Cultural Basis of Emotions and Gestures," *Journal of Personality*, 1947-48, 16:49-68).

³⁷ Otto Klineberg, *Social Psychology*, New York: Henry Holt and Company, Inc., 1940, p. 196.

"submission." It was Watson's further belief that all emotional expression is identifiable. While admitting the "innateness" (in the structure-function sense) of his three basic emotions, it was his opinion that all three could be conditioned. If we accept Watson's statements, we have an opposite view of emotional expression to that which Darwin advanced. For in Watson's theory all behavior is a matter of conditioning and not of inheritance.

FELEKY

In another early approach to the problem Feleky³⁸ presented 86 photographs of herself, each one of a specially arranged representation of an emotion. The subjects were instructed to write on a piece of paper, opposite the number of each photograph, the particular emotion which in their judgment it portrayed (e.g., fear, rage, surprise, suspicion, sympathy, etc.). The judges differed widely in their judgments.

LANDIS

Landis conducted a study designed to disclose whether emotions as reported are accompanied by differentiated and readily recognizable facial expressions. The facial expressions of subjects were photographed while they were responding to such emotion-producing stimuli as smelling a bottle of ammonia, looking at pornographic pictures, decapitating a live rat, receiving a severe electric shock, and looking at pictures of loathsome diseases. In addition to photographing the responses of anger, surprise, disgust, and sex excitement with care, this investigator drew black lines on the subject's face for the purpose of making the expressions stand out better in the pictures. In the end Landis found that individuals vary greatly in their reactions to the same emotional situations. He summarized as follows: "With no verbal report of a given emotion did a muscle, group of muscles, or expression occur with sufficient frequency to be considered characteristic of that emotion. There is no expression typically associated with any verbal report."³⁹

³⁸ A. N. Feleky, "The Expression of the Emotion," *Psychological Review*, 1914, 21: 33-41.

³⁹ Carney Landis, "Studies of Emotional Reactions: II. General Behavior and Facial Expressions," *Journal of Comparative Psychology*, 1924, 4:447-511.

MUNN

In an effort to ascertain whether knowledge of a situation influences judgment of emotion from facial expressions, Munn tested ninety psychology students by means of lantern slides. Two sets of slides were made from "candid-camera" photographs of emotionally toned situations.⁴⁰ The slides of one set pictured everything in the original photograph, while those of the other set were enlargements of the facial expressions of a participant. The ninety students were first shown slides containing the facial expressions alone, after which they were asked to judge the same expression again, but this time in its natural setting. No terminology for the replies was suggested in either instance. The most frequent terms used by the students were taken to serve as a suggested vocabulary in a repetition of the experiment with other students.

Judging from the findings, the students demonstrated "marked ability to judge the affective tone of the facial reaction." Munn thus believes, in spite of previous evidence to the contrary, that it is possible to judge emotions from photographs of the face. As he sums up, the "results suggest that spontaneously aroused emotional expressions may be interpreted with as much agreement as are the more conventional posed expressions used in previous research. There is even a suggestion that agreement may be higher for the natural expressions."⁴¹

It is, of course, possible that Munn's conflicting findings are the result of (1) a more than ordinarily comprehensive and carefully conducted research design and (2) the utilization of natural emotion-producing situations with which students of psychology and others are familiar.

THE ALLPORT-VERNON STUDIES⁴²

Allport and Vernon studied individual expressive movements in an effort to determine whether such movements can rightfully be designated as traits of personality. It was assumed that consistency of movement is observable and can be connected with personality factors.

⁴⁰ N. L. Munn, "The Effect of Knowledge of the Situation upon Judgment of Emotion from Facial Expression," *Journal of Abnormal and Social Psychology*, 1940, 35:324-338.

⁴¹ *Ibid.*

⁴² G. W. Allport and P. E. Vernon, *Studies in Expressive Movement*, New York: The Macmillan Company, 1933.

Characteristic motor acts were defined in terms of expressive movements (e.g., handwriting, reading, walking gait, strength of grip, etc.). These movements were measured objectively by the authors in such a way as to draw some patterns of comparison. To augment their data, ratings were obtained with respect to fluency of speech, intensity of voice, and rapidity, smoothness, and rhythm in movements and gestures. The authors hoped to secure a truly representative portrait of the individual. It is Allport's contention that personality is reflected in consistent ways of doing things.

For the most part the data, especially when the test situations were repeated, substantiated the original hypothesis. The relationships among the different tests were positive, and the relationships of the tests themselves with the rating scales also indicated positive agreement. Actual performance and judgments showed the same results: there is a consistency in expressive movement. If we can determine, for example, the drawing, writing, and counting habits of an individual with some degree of accuracy, it is possible, so say these authors, to account for the related characteristics of such expressive movements. Even when significant consistency in expressive movements does not obtain, "congruence" is in evidence. Congruence is defined as the fundamental cohesiveness which underlies an individual's habits.

The authors found that skilled writers (graphologists) could match handwriting specimens and thumbnail sketches of personality pattern with remarkable accuracy. Their associations remained consistent throughout the tests. The authors did not, however, contend that their results can be used to ascertain personality characteristics in the same sense that handwriting "experts" purport to operate. Their position is, rather, that the personality variables of a given individual are related to consistent acts and can be measured.

SECORD AND MUTHARD'S STUDY⁴³

In a more recent investigation, 140 college students (both sexes) were given twenty-four photographs of young women whom they were to rate with respect to both physiognomic "traits" and personality "attributes." The physiognomic traits to be rated included such factors

⁴³ P. F. Secord and J. F. Muthard, "Personalities in Faces: IV. A Descriptive Analysis of the Perception of Women's Faces and the Identification of Some Physiognomic Determinants," *Journal of Psychology*, 1955, 39:269-278. See also Trygg Engen and others, "A New Series of Facial Expressions," *The American Psychologist*, 1957, 12:264-266.

as skin texture, shape of face, eyes (narrowed-widened), and the like. The personality attributes to be rated, some of which involved affective factors, were designated by such terms as aggressive, outspoken, energetic, reserved.

The findings indicated a fairly high agreement in the rating of both physiognomic and personality attributes, the physiognomic traits being rated with a high degree of reliability. In the appraisal of personality attributes, however, the judges' ratings were to a considerable extent inconsistent. The analysis of variance method showed that certain combinations of physiognomic traits are related in a significant degree to impressions of patterns of personality.

SUMMARY

In this chapter we have examined the vital issue of emotion and how it affects personality. The problem of emotion is perhaps more diffuse than any other in the area of personality. For in dealing with emotion we are faced with the fact that it is only through inference that we can ascertain its presence. The behavior called emotional does not, in the strict sense of the scientific method, permit us to assert that emotion is present. However, despite the incompleteness of our knowledge in this respect we now are aware, for example, that many of the emotions once considered to be innate are more likely learned responses acquired in dynamic situations. The implications for personality development of this observation should be evident. They suggest that many personal qualities and limitations ordinarily considered innate can be explained in terms of learning.

Although the fact that there exist a number of theories regarding the nature of emotion invites confusion, we can discern the emergence of a greater understanding of the affective aspect of human behavior. Such insight would seem to be essential to the control of personality formation and development.

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PART THREE

Determinants of Personality

5

The Environment and Personality Development

THE RELATIVE importance of the various determinants of personality has been discussed for many years, but the scientific assessment of these determinants has barely begun. To facilitate the study of the influences on personality, the environment has been divided into three broad areas, each intimately related to the rest, and all subject to further theoretical subdivision. These areas are referred to as the natural, the cultural, and the social environments. Though these divisions are in a sense artificial, students have found them useful in delineating the boundaries for investigation.

THE NATURAL ENVIRONMENT

While all men are alike with respect to basic needs and drives, different physical environments impose different ways of meeting these needs. The Bedouin of the desert and the Eskimo of the arctic regions are products of their different physical environments; the development of their bodies and of their ways of life depends in large part on their physical surroundings. The climate makes some men dark and some men white, some large and some small. Requirements of food and shelter make lonely nomads of people in some parts of the world, members of small closeknit hunting and fishing tribes of others. Although there has been little study of the effects on personality of these differences in the physical worlds in which people live, future research may show that they are relevant.

THE CULTURAL ENVIRONMENT

Besides the purely physical environment, the culture of the group (which emerges from that environment) influences personality. According to Mowrer:

Culture consists of those instrumentalities by which the direct influence of the natural environment is mediated. These instruments can conveniently be classified into artifacts, techniques, and beliefs. The artifacts are the physical objects of everyday life which represent the molding of the materials of both inanimate and animate natures to the purpose of man . . . the action patterns by which one gets things done, whether with or without the use of artifacts, constitute the techniques. . . . Beliefs in turn are quite as varied so far as their concrete manifestations are conceived, ranging all the way from a society's moral and ethical notions to the principles of science and the philosophies by which man attempts to understand his relationship to the multiverse in which he lives and to his fellows.¹

Our own culture stems in the main from Western Europe and the Middle East. Our beliefs are outgrowths of centuries of conflict. Greek art and Roman laws alike have left their imprint upon our thinking. The philosophy, the language, and the religions we individually claim as our own have come to us through oblique paths from prior civilizations.² Our code of ethics, which colors all our literature as well as our thought, is a bequest from the Judeo-Christian tradition. Our sacred literature is not that of other cultures, and so rules of conduct which have a bearing upon personality development vary.³ The tenets and beliefs of democracy, as practiced in the United States of America, are particularly vital to our own way of life, yet may be rejected or confusing to other peoples whose systems of government differ from our own. Only those who have been impressed with the unique culture of a group respond in a fashion typical of that group. As Sorokin puts it,

¹ E. R. Mowrer, *Disorganization: Personal and Social*, Philadelphia: J. B. Lippincott Company, 1942, p. 4.

² J. S. Slotkin, *Social Anthropology*, New York: The Macmillan Company, 1950.

³ Professor Jeffery of the Union Theological Seminary has written, "The Qur'ān is the Scripture of Islam. It is the Holy Book which Muslims revere in precisely the same way as other communities have revered and do revere their Holy Books. It is the source from which the Muslim community draws the primary prescriptions for the regulation of daily living, and to which its people turn to find nourishment for their devotional life" (A. Jeffery, *The Qur'ān as Scripture*, New York: Russell F. Moore Co., Inc., 1952, p. 3).

... the superorganic aspect of a personality is not determined by or acquired from biological heredity. It is molded by the social and cultural milieu. Man's beliefs, values, and norms, his emotional and volitional expressions and his meaningful actions (but not his purely reflexive and instinctive reactions) are furnished and processed by the social groups with which he interacts. There is no other source for the social and cultural properties of the individual . . . the margin of personal creativity is ordinarily fairly narrow, sometimes non-existent. Therefore a *socius*, a person, in contradistinction to a mere biological organism, cannot help becoming a mirror of his sociocultural universe.⁴

THE SOCIAL ENVIRONMENT

A human society is generally defined as an *organized* group occupying a given area and identified by a combination of attitudes, patterns of behavior, and purposes.

The individual's social group is one of the focal points of his personality development. As Ackerman states:

Society is the nutritional medium in which the identity of a person gradually emerges. The substance of each society structures the content of that identity. As the individual matures, he achieves an identity which is at once both individual and social. These two aspects of personality identity are represented in the more durable, less modifiable aspects of character structure. It reflects the organized, consistent behavior tendencies of the individual, those specific integrations of behavior which have been conditioned by the interaction of biological disposition and early family conditioning. It is the core of personality, the more personal, private, relatively fixed aspect of the self.⁵

Fortunately for students of personality, the individual's group has proved most amenable to observation and measurement. Factors which help shape personality are manifested in the individual's social relationship and can be observed and measured in direct interpersonal relationships. Organizations engaged in small-group research are contributing much to our knowledge of personality development. Here is a list of subjects now being studied by such organizations.⁶

⁴ P. A. Sorokin, *Society, Culture, and Personality*, New York: Harper & Brothers, 1947, p. 342.

⁵ N. W. Ackerman, "'Social Role' and Total Personality," *American Journal of Orthopsychiatry*, 1951, 21:1-17.

⁶ J. A. Lippert, "Group Dynamics II: Group Dynamics and Personality Dynamics," *American Journal of Orthopsychiatry*, 1951, 21:18-31.

1. How the cohesiveness of the group determines the type and amount of influence which the group exerts on its members.
2. How the type of group task determines patterns of competition and cooperation between members.
3. How the presence or absence of certain roles in the group influences the degree of efficiency of group problem solving.
4. How inadequacies of communication determine distorted intermember and intergroup perception and attitude.
5. How participation in a group decision determines changes in member attitude and behavior.
6. How groups resist attempts to change their ways of functioning.
7. The conditions under which there is or is not a contagious spread of ideas and behaviors through a group.
8. Determinants of high and low influence positions in the group structure.
9. The extent to which an individual's attempt to influence other persons is determined by his perception of his own position in the group structure.
10. The extent to which a person's acceptance or rejection of influence from others is determined by his perception of power of the other person.
11. The ways in which influence patterns are determined by the nature of the interpersonal relations.
12. The extent to which a person's expression of spontaneous creativity is determined by his perception of his acceptance by the group.
13. The relationship between one's sensitivity to social stimuli and the strength of one's need to belong to that group.

ADAPTATION AND PERSONALITY

Throughout the research literature on the subject, it is evident that the social order in which the individual functions holds the seeds of personality balance or imbalance. MacMurray says, "We cannot understand the living creature in terms of itself. Its life, and hence its growth . . . though . . . an inner spontaneity and not the effect of an impressed force, is nevertheless conditioned by its environment

and proceeds as an adaptation to the environment and as a response to the stimulus which the environment alone can provide.⁷

In the discussion of the influence of the environment on personality development, this continuous interplay of the organism and the environment was ignored. Taking account of this constant interplay complicates the scientist's job. Which factors are environmental and which are personal? Can one be sure of what he is measuring in the midst of this action? Can some means be found for stabilizing the situation while it is being investigated?

Every local society is a world of its own, a microcosm within the macrocosm of that broader society of which it is a part. The broader society of which each subsociety is a part refers not merely to other persons and areas existing at the same point of time, but also to the fact that the subsociety has had a history. It has had a development over a period of time, which serves to relate it to times past. Things were not the same in the time of our grandparents as they are now. And yet our present customs and beliefs bear recognizable relations to those older customs and beliefs. Certainly the same culture has extended itself down through different societies and succeeding generations, yet it will have been changed by differing languages, differing circumstances, and the necessity of adapting to new events.

Each society, and frequently each subsociety, is inclined to view itself as being the best, as having the really proper beliefs and customs. This attitude, often called provincialism, is perhaps what is at work in many tribal societies for whom any stranger is regarded not merely as an outsider but as an enemy. Yet this attitude is hardly limited to insulated societies, nor even to societies in the past. It is, rather, a state of mind that seems to be inherent in all societies. Thus the mere mention of the phrase, "Victorian England," calls to mind a vision of the time when the British people were not merely secure and self-sufficient, but when they were inclined to feel that the distinguishing marks of Queen Victoria's reign constituted the only fitting way of life.

Yet in seeming to criticize this provincialism on the part of societies, we should not forget that each society does indeed appear to have its characteristic features, features which frequently differen-

⁷ J. MacMurray, *Interpreting the Universe*, London: Faber & Faber, Ltd., 1952, p. 120.

tiate it from other societies. Thus the terms Frenchman, Spaniard, American, bring in their wake a host of meanings which we attach to these words and which often imply characteristics of each people that we feel differentiate it from other peoples. When these features are stated too strongly, and especially when they are stated without careful regard for the extent to which they are actually entirely true of a group of people, we call them stereotypes.

Our objective—to understand the relation of personality with culture—is made much more difficult of attainment by these two seemingly contradictory facts—the one of stable characteristics of a group of people, and the other of the fact that a given people have undoubtedly altered and readapted their own habits and beliefs in the course of time. Since one of our problems is how to describe and measure these reactions and forms of behavior, we must take into account both the recurring events and the relative change in them historically.

The problem is complex, but hardly insurmountable. Thus, as the psychologist Skinner has observed,

Behavior is a difficult subject matter, not because it is inaccessible, but because it is extremely complex. Science is a process, rather than a thing, it cannot be easily held still for observation. It is changing, blind, and evanescent, and for this reason it makes great technical demands upon the ingenuity and energy of the scientist. But there is nothing essentially insolvable about the problems which arise from this fact.⁸

THE IMPACT OF BEHAVIORISM ON PERSONALITY

The branch of psychology which has been preeminent in the measurement of personal adaptation was given its greatest impetus in America by John B. Watson and his doctrine of behaviorism (1913). Accepting as its first premise the primary significance of behavior, i.e., the organism adapting to its environment, Watson's psychology has played a significant role in orienting our views regarding personality development. Behaviorism considers the individual purely and simply as an organism, one of a species, whose behavior is reckoned in terms of S-R situations.

In Watson's psychology the individual was viewed as an organism

⁸ B. F. Skinner, *Science and Human Behavior*, New York: The Macmillan Company, 1953, p. 15.

primarily engaged in responding to or adapting to its environment. The attractiveness of such a system should be evident, for if we can determine how the organism reacts to certain environmental conditions, no further elaboration is needed. Control of behavior becomes a matter of controlling the environment. In effect, environment, not the self, is the prime determinant of personality.

The emergence of this theory and its development into one of the more prominent of American psychologies brought many repercussions in its wake. Riding the crest of Darwinism, the new school of psychology brought some radical innovations into our thinking. The naturalistic basis of behaviorism, its insistence on activity and its rejection of the traditionally hallowed free-will concept brought about a wave of counterattacks. The reluctance of human beings to give up their firm convictions is well known. That consciousness per se does not exist was too revolutionary a concept for the early psychologists to accept with equanimity. This was especially true of the introspectionists, whose entire theory rested upon consciousness as an existent reality.

However considered, behaviorism has much to offer as a research method. At least it makes a forcible effort to rid itself of the "intangibles" which have so inhibited research. Members of this school of psychology content themselves with describing observed phenomena. Physical processes and their interaction with the environment have been featured in the research.

THE DEVELOPMENT OF BEHAVIORISM

In 1914 Watson published a book⁹ which was destined to become the center of some of the most bitter debates in American academic circles. In this volume he set forth the major principles of his naturalistic psychology. It was his contention that behavior is at once the distinctive mark and only reliable measure of the processes of life. Thus personality is to be considered in terms of the organism's functioning in its environment. As Watson insisted, the stimuli once given, the prediction of the responses logically follows. Observation becomes the key to the assessment of behavior under different conditions. There must not be, as Watson said, any subjective readings (pleasure-pain theory) into any data derived by the investigator. In

⁹ John B. Watson, *Behavior: An Introduction to Comparative Psychology*, New York: Henry Holt and Company, Inc., 1914.

later experiments of his own making, Watson considered that his results verified his assertions. Watson's work presaged the wide popularity given to the theory of behaviorism, a theory based upon the response of the organism to the stimuli of its environment.

It is generally acknowledged that the principle of the conditioned response which Watson and those who followed him advocated grew out of the previous work of the Russian physiologist Ivan Pavlov. In a series of exceptionally ingenious studies Pavlov and his staff probed into the effects of conditioned stimuli upon the reactions of the salivary glands of the dog. Using a soundproof laboratory, Pavlov sought to discover whether a stimulus other than food would cause the dog to salivate.

Pavlov found that when two stimuli—one the powdered meat and the other the ringing of a bell—were presented simultaneously for a given number of times, the latter (conditioned stimulus) came to elicit the saliva-flowing response (conditioned reflex) which originally was associated only with meat as the stimulus. From this beginning Pavlov worked out additional experiments by which the principle of conditioning could be extended to many other glandular and visceral functions.

In this way there was derived a picture of personality development from a series of carefully constructed situations. In short, personality is *conditioned*. That this principle has much scientific validity can hardly be denied. Physiologists for some time have recognized that behavior is regulated internally in humans according to definite principles. Years ago Jennings described this regulatory process as follows:

Nowhere is regulation more striking than in behavior. Indeed, the processes in this field have long served as the prototype for regulatory action. The organism moves and reacts in ways that are advantageous to it. . . . If it enters an injurious chemical solution, it at once changes its behavior and escapes. If it lacks material for its metabolic processes, it sets in operation movements which secure such material. If it lacks oxygen for respiration, it moves to a region where oxygen is found. If it is injured, it flees to safer regions. In innumerable details it does the things that are good for it. It is plain that behavior depends largely on the needs of the organism and is of such a nature as to satisfy these needs. In other words, it is regulatory.¹⁰

¹⁰ H. S. Jennings, *Behavior of the Lower Organisms*, New York: Columbia University Press, 1923, pp. 338-339.

The first actual studies regarding the principles laid down by Pavlov were reported by Krasnogorski, also a Russian, in 1907.¹¹ The conditioned response in a fourteen-month-old infant was established by stimulating the subject with both food and the ringing of a bell. In a later experiment the same investigator set up conditioned responses in three- and six-year-old children. He was convinced as a result of his earlier studies that conditioned responses are very difficult to establish in an infant less than one year of age.

More recent studies indicate that children can be conditioned earlier than formerly was believed to be the case.¹² The implications of this process for personality development can readily be seen. Impressed with the kind of results Pavlov achieved in his canine experimentation, investigators in the early years of the present century proceeded to apply these data to the study of children.

PSYCHOANALYSIS AND BEHAVIORISM

It remained for the psychoanalysts to develop to its fullest that which was suggested by Pavlov. However, while it recognizes the force of the environment (stimuli), the psychoanalytic position has constructed an edifice of reference peculiar to itself. Where Pavlov and his followers focused their research upon the organism's direct responses to controlled situations, the psychoanalysts emphasized the "unconscious." Both theories recognized the effect of the environment, the distinction resting in the emphasis given to the response. Pavlov concentrated his efforts in the conditioning aspects of behavior; the psychoanalysts made the environment intensely personal. It is the actions of the parents, say the psychoanalysts, which in large part make up the environment of the child and thereby determine later personality adjustment or maladjustment. In both instances, however, there is tacit acceptance of the unitary nature of personality—that mind is not a substantive entity. By this approach personality research became centralized in the individual and not in the forces outside of him. As Linton writes concerning this problem, "Actually,

¹¹ N. Krasnogorski. For an account of this pioneer work see Florence Mateer, *Child Behavior*, Boston: Richard D. Badger, 1918, and John B. Watson, "The Place of the Conditioned Reflex in Psychology," *Psychological Review*, 1916, 23:89-116.

¹² D. P. Marquis, "Can Conditioned Responses Be Established in the Newborn Infant?" *Journal of Genetic Psychology*, 1931, 39:479-492; and M. A. Wenger, "An Investigation of Conditioned Responses in Human Infants," *University of Iowa Studies in Child Welfare*, 1936, 12:9-90.

the main problem involved in the definition of personality is one of delimitation. The individual and his environment constitute a dynamic configuration all of whose parts are so closely interrelated and in such constant interaction that it is very hard to tell where to draw lines of demarcation."¹³ Linton proceeds to define personality as "the organized aggregate of psychological processes and states pertaining to the individual."¹⁴

EXPERIMENTAL EVIDENCE

In America the theory of conditioning has gradually grown into a central instrument for personality research. Even those who do not necessarily accept the principles of behaviorism are favorably disposed toward many of the data which have emerged from the experiments on conditioning. Even psychologists who are not mechanistic in their own views see in such a technique many possibilities for the early training of children, as well as a method of detecting incipient personality disorders. For if one reduces personality formation to its simplest elements, as the behaviorists have done, behavior seems more amenable to control.

Mateer was among the first investigators in this country to follow the rules of conditioning laid down by Krasnogorski.¹⁵ In an intensive investigation involving some fifty children, ranging in age from one to seven years, she secured data which in her opinion were comparable to those of the Russians. By employing such standard aids as intelligence tests, Mateer was able to discover the degree of facility with which children of different intellectual levels respond to conditioned stimuli, such as salivating at the sound of a bell—instead of to the taste of candy. She concluded that when conditioned and unconditioned stimuli are presented to mentally deficient children these children require two or three times as many repetitions for the secure establishment of a connection as do children with average intelligence. In addition, Mateer found that the permanence of a conditioned response varies notably with age, intelligence, and other like factors. Mateer's work has been criticized on the ground of her meager sampling, unreliable statistical treatment, and doubtful in-

¹³ R. Linton, *The Cultural Background of Personality*, New York: Appleton-Century-Crofts, Inc., 1945, p. 54.

¹⁴ *Ibid.*

¹⁵ Florence Mateer, *op. cit.*

terpretations. Despite these criticisms her work stimulated discussion and other psychologists followed her lead.

The experiments which Watson conducted created more discussion and interest even than Mateer's. From his own investigations Watson concluded that children possess only three clearly differentiated emotions—namely, fear, rage, and love. Watson argued that newborn infants display fear responses only to loud noises and loss of support, or to both of these. Thus the host of fears which arise throughout our lives must be learned in contact with our environment. "I want to develop the thesis," said Watson, "that society has never been able to get hold of these implicit concealed visceral and glandular reactions of ours, or else it would have schooled them in us, for society has a great propensity for regulating all our reactions. Hence most of our adult overt reactions—our speech, the movement of our arms, legs and trunk—are schooled and habitized."¹⁶

To justify his contentions Watson conditioned fear in Albert B, who was described as an even-tempered "good" baby eleven months of age.¹⁷ After determining through tests, with rabbits and white rats, that Albert showed no fear of the furry type of animal, Watson set about to condition fear in Albert by associating one or more of the animals with a frightening stimulus, the loud noise produced by striking a steel bar. Within about a week he had "taught" Albert to be afraid of many furry objects. Thus Watson felt that he had demonstrated a basic tenet of behaviorism: *Control the environment and you control the development of personality.*

A REVIEW

That Watson's theory represents an oversimplification of the facts has become recognized. His three basic emotions are open to question. In fact, since they assumed that fear, rage, and love are existent realities and that somehow the newborn infant is endowed with them, the statements he made regarding emotions have metaphysical implications.

In retrospect it would appear that Watson failed to understand the complex nature of the interaction of organism and environment. Unless one is willing to accept the doctrine of materialism *in toto* it

¹⁶ John B. Watson, *Behaviorism*, New York: W. W. Norton and Company, Inc., 1930, pp. 165-166.

¹⁷ John B. Watson, *Psychological Care of Infant and Child*, New York: W. W. Norton and Company, Inc., 1928, pp. 48-56.

is difficult to accept Watson's theory. The *diversity* of responses to the same stimulus would seem to rule out any simple concept of behavior. The behavioristic psychologists who followed Watson have been forced to devise new concepts to meet the objections raised to his theory.

Watson, however, has made a distinct contribution to an understanding of personality development. He concentrated research regarding behavior in objective measurement. In addition, his own pioneering brought into sharper focus the influence of the environment on behavior. Anyone concerned with the study of personality sooner or later comes to realize the problems involved in delimiting an area of research. When a field of study has been isolated for analysis with the larger perspective in mind the results have been uniformly constructive. The danger lies in so conducting an experiment that the data involved lack meaning for the "total design" of an area of study. To Watson is owed much of the present interest in the data with respect to behavior which can be observed and verified. As Tyler describes the situation:

The science of human differences is still in its infancy. The most interesting questions are still unanswered. . . . To proceed on the basis of tested evidence when such evidence is available, to suspend judgment when no conclusion is warranted, to formulate tentative clauses of action in areas where doubt exists—these are the wisdom and the skills needed by the social scientist and the applied psychologist of our day.¹⁸

From Watson's experiments there remains, then, a new emphasis upon objective method and the importance of the environment in personality development. In the latter respect one finds it easy to be in accord with Watson.

The concept of culture is the notion which we have earlier used to refer to one of the significant aspects of the individual's environment. Now if it is true, as is believed, that the culture of the individual personality is influential in producing the particular features of the personalities of individuals within that culture, it becomes logical to think in terms of eventually being able to manipulate the culture so as to produce certain kinds of personalities and to discourage the development of others. At present, it is possible to make

¹⁸ L. E. Tyler, *The Psychology of Human Differences*, New York: Appleton-Century-Crofts, Inc., 1947, p. 15.

certain predictions concerning the nature of an individual personality if we know something about the culture of the group of which that individual is a part. Thus, we can see some meaningful distinctions among the personalities of individuals in certain societies and the child-training patterns of these societies. The assumption is that these different child-training patterns are in some important measure responsible for the different attributes of personality noted. It is tempting to believe that man might at some future time be able to reverse this process, that is, design certain cultural experiences which will maximize the chances of developing certain desired personality attributes.

LEARNING AND PERSONALITY

A more recent statement of stimulus-response psychology as it applies to personality is seen in the work of Professors Miller and Dollard of the Institute of Human Relations, Yale University. These investigators hold that all behavior (and by implication, personality development) is learned. Thus the task of the psychologist becomes that of singling out the rules or principles covering the stimulus-response sequence.

From these considerations it follows that adequate knowledge of learning theory (stimulus-response sequences) is essential to an understanding of personality development. It would seem needless to add that for Miller and Dollard, as well as many others of like persuasion, the conditions which influence learning are primarily social and cultural in nature. "No psychologist would venture to predict the behavior of a rat without knowing on what arm of a T-maze the food or the shock is placed," Miller and Dollard point out, and, by the same token, "It is no easier to predict the behavior of a human being without knowing the conditions of his 'maze,' i.e., the structure of his social environment."¹⁰

Seen from such a vantage point, personality may be defined as the product of the particular milieu which surrounds each of us. For Miller and Dollard the problem is concentrated on the identification of forces which form this milieu. Once this obviously formidable task has been accomplished personality development becomes understandable to the observer. Individual aggressiveness has often been

¹⁰ Neal E. Miller and John Dollard, *Social Learning and Imitation*, New Haven, Conn.: Yale University Press, 1941, p. 5.

believed to be natural or instinctive. But upon examining this particular aspect of behavior, *social* conditions appear to be responsible for its appearance on the part of the individual. As an example, they cite drinking habits among various social levels in a given small town. Here drunkenness is measured in terms of the disapproval of the various groups. "There is little punishment for overindulgence and no urgency to 'drink like a gentleman' among lower-class men."²⁰ Conversely, "upper-class" individuals are expected to drink like gentlemen. Thus behavior is measured in terms of group mores.

What is called abnormal behavior is, according to Miller and Dollard, learned as a defense mechanism and persisted in because it fulfills a need. Thus the seriously withdrawn individual comes to rely upon his delusions and resents any attempt to deprive him of their comfort. The abnormal person has "learned" how to fulfill his needs through retreating from his environment. In similar fashion we all respond to various stimuli in terms of our own particular needs. Miller and Dollard round out their case by writing that "the evidence seems to show that . . . behavior follows the laws of learning and arises under the social conditions which reward it."²¹

SOCIAL PSYCHOLOGY AND PERSONALITY

The social psychologist believes that personality to a considerable degree is conditioned through the interactions of the individual and his society (society in this instance representing the other individuals with whom the person comes in contact). Murphy, a leader in the field of social psychology, points up this issue in the following words:

Man is a creature that responds to other men in as full a sense as he responds to oxygen or gravity; he is as fully anthropotropic as geotropic. Man as man is in some degree social; the inner-outer structure which is the product of a particular organism-culture interaction gives at the same time the first law of cultural reaction, the key to the cultural nexus itself. If all the man and all of the culture—its geographic, economic, institutional patterns—are held in view at once, personality study becomes a biosocial, not only a biological investigation. In these terms, the social is simply the biological pattern that embraces interorganismic events.²²

²⁰ *Ibid.*, p. 7.

²¹ *Ibid.*, p. 12. See also John Dollard and Neal E. Miller, *Personality and Psychotherapy*, New York: McGraw-Hill Book Company, Inc., 1950, Chap. 3.

²² Gardner Murphy, *Personality: A Biosocial Approach to Origins and Structure*, New York: Harper & Brothers, 1947, p. 6.

To control personality development, then, it is necessary to possess an arsenal of psychological data. If we are familiar with the mores of a given society and its present rules of conduct, we are in a favorable position to control personality development. By virtue of the knowledge we can derive from a study of various social patterns we should eventually be able to construct systems concerned with the prediction of behavior. These systems would, in turn, provide us with clues to the future actions of individual personalities. If we then wish to mold a certain kind of personality—judged by society beforehand to be desirable—we must plan such conditions of social living as are conducive to the development of such a personality. And since it is men who will need consciously to manipulate these social conditions, it is men that we must study. "The proper study of mankind is man." Thus, insofar as his destiny is affected by society, it will be man who shapes his own personality qualities.

CONFLICTING VIEWS

Sociologists have predicated their studies on social interaction in its multidimensional aspects, considering psychology as a kind of after-effect. And, conversely, being convinced that the dynamics of human behavior are largely independent phenomena, psychologists have initiated their own researches. That there has been so little integration of these efforts has been the concern of many students in both areas. Plant writes,

The social scientists in the one line of trenches and the psychiatrists in the other hurl noisy and brilliantly exploding bombs. . . . Social psychology and social psychiatry have been pretty anthropomorphic—involving a naive sort of inflation of the individual to the size of village, city, race, or nation. Each of these approaches has lacked realism, being a rather labored effort at using familiar methods and tools on soil demanding new approaches. The concepts and techniques of each group must be modified for the common task. The suggestion has been made that essentially a new discipline will be set up to cover this field—the individual in relation to his environment.²³

²³ J. S. Plant, *Personality and the Cultural Pattern*, New York: The Commonwealth Fund, Division of Publications, 1937, p. 12-13. Dr. Plant refers to Professor Sapir's remarks on the need for the setting up of a new discipline. See E. Sapir, "Cultural Anthropology and Psychiatry," *Journal of Abnormal and Social Psychology*, 1932-33, 27: 229-242.

McDougall propounded the unifying doctrine of instincts as a basis for behavior. When it was revealed, however, that instincts concealed a multitude of unfounded beliefs concerning behavior, social psychology lost its "first principles." The restoration of a foundation for the discipline of sociology was left to Thomas and Znanieki's five-volume work, *The Polish Peasant in Europe and America* (1918-1920). Karpf tells us that,

The approach formulated by Thomas and Znanieki defined the sociological and social-psychological viewpoints and largely held the ground, in so far as sociological thought and research were concerned, for almost . . . two decades, which, however, overlapped the period dominated by McDougall's work and, in fact, was one of the strongholds of criticism of the latter. But this formulation, influential as it was, did not unify the field as had McDougall's. . . .²⁴

LIMITATIONS OF SOCIAL PSYCHOLOGY

A science is measured by the extent of verification of its findings. But no science can even begin work unless it is founded upon a set of principles, the validity of which insures the data which are derived. Social psychology is not yet a science to the degree that sociology or psychology, if these disciplines can be classified as independent, may be said to be. Whether such a separation is possible is beside the point. The fact remains that such a dichotomy exists. That the problem is exceedingly acute becomes more obvious each day. In perhaps no other area is the need for research more evident. The very nature of man's development as a social personality has forced this consideration upon us. Men have banded into societies all over the world and as population problems increase and technology advances the situation will become crystallized even further.

A way to the resolution of this social-personal problem has been suggested by Karpf, from whose report we quote as follows:

In a field as comparatively recent, active, and complex as modern social psychology it is inevitable that there should be variety in viewpoint, orientation, and procedure. This is not a cause for concern but a sign of healthy and many-sided activity. However, after a period of isolated disciplinary development and intensified emphasis on empirical research at the expense of historical background and theoretical perspective, there is today a balancing and urgent need

²⁴ F. B. Karpf, "American Social Psychology—1951," *American Journal of Sociology*, 1952, 58:187-193.

of organization and unification in the field. This is, of course, one of the prime objectives of the recent interdisciplinary movement, and much hope is today centered in the integrative possibilities of the interdisciplinary approach.²⁵

The realization that man's actions in large part are of social origin and open to scientific measurement is evident in the social-personality movement which Kluckhohn and Murray state began around 1925.²⁶ In that year White published his *Personality and Culture*. But it is to Sapir that these two men give much of the credit for the expansion of this concept. In addition, they recognize the contributions of both Dollard and Frank in enunciating the principles of the new discipline. This movement, as described by Kluckhohn and Murray, is but one of several streams which have been pouring into the reservoir of social psychology. William James, John Dewey, and George Mead, among others, were influential figures in the development of social psychology. In fact, the movement owes much of its growth to the pressing problems of twentieth-century America. The disciplines of any culture reflect the problems implicit in that culture. The industrial revolution transformed our social mores. People who became crowded together into complex urban areas were forced into some type of interaction. The ideas of a developing social psychology fell upon soil already made fertile by a growing awareness of social dislocation in American society.

THE EFFECTS OF ENVIRONMENT

One of the major considerations of any discipline is the problem of adequate criteria for measurement. This problem of the "norm" is especially noteworthy in the area of personality. In fact, there are those who virtually have conceded the impossibility of measuring the dimensions of personality with any effectiveness. These students of the subject emphasize the overwhelming number of factors which impinge upon personality and the efforts entailed in singling them out for observation. But that some success in this respect is possible is not too much to hope for. In time and as measuring instruments

²⁵ *Ibid.*

²⁶ C. Kluckhohn and H. A. Murray (Eds.), *Personality: In Nature, Society, and Culture*, New York: Alfred A. Knopf, Inc., 1953, p. xvii.

become more precise and the area of personality more adequately delimited, greater progress no doubt will be made. As Leeper reports,

In the theories of personality, then, there is an overall trend which possesses great significance. It is a trend, in a sense, towards more objective and tough-minded principles—principles phrased in terms of increasingly tangible factors. But, the reason for this is not what some psychologists have imagined. It is not the fact that personality theories are being phrased, more and more, in terms of factors which were tangible already. Instead, the chief value of psychology lies in the fact that it has been creating tangibility for those factors which can be proved to be significant, but which had always been elusive and unmanageable before.²⁷

EARLY RESEARCH DATA

To illustrate the thesis that effective data in this area can be secured we shall review here a number of the more significant studies involved. While these earlier investigations are open to criticism they nevertheless indicate that progress in the assessment of certain of the forces affecting personality operating in the environment is possible.

In 1914 Goddard,²⁸ then director of research in the Vineland Training School for mental defectives, made a study of the family histories of three hundred feeble-minded persons. His conclusion, that 77 per cent of his cases inherited their mentally deficient status, was a decisive defeat for the environmental viewpoint. Goddard's figures leave no doubt of his own belief in "mental inheritance." For he asserted that 54 per cent of his subjects indicated unquestioned inheritance, that 11 per cent probably were inherited, and that 12 per cent appeared to have a tainted (neuropathic) ancestry.

Goddard's view seemed to have substantiated his own classic illustration of inherited defectiveness, the Kallikak family. Martin Kallikak, a Revolutionary War soldier, was reported to have fathered a child out of wedlock by a reputedly feeble-minded barmaid. This child, according to Goddard, brought into existence a long line of progeny who were distinguished by their lack of normal characteristics. It was alleged that the Kallikak line was tainted throughout

²⁷ Robert W. Leeper, "Current Trends in Theories of Personality," in *Current Trends in Psychological Theory*, Pittsburgh: University of Pittsburgh Press, 1951, p. 52.

²⁸ H. H. Goddard, *Feeble-mindedness, Its Causes and Its Consequences*, New York: The Macmillan Company, 1914. See also, by the same author, *The Kallikak Family: A Study in the Heredity of Feeble-mindedness*, New York: The Macmillan Company, 1912.

with feeble-mindedness, pauperism, criminality—in fact, with virtually the whole range of social degeneracy.

In all of this colorful account there is no mention of a critical investigation of the factors operating in the environments concerned, nor of the fact that the tavern maid may not have been feeble-minded. The Kallikak legend merely lent force to the practically universal belief that feeble-mindedness is passed on from parent to offspring.

A step in another direction was taken by Doll,²⁹ who succeeded Goddard as director of research at the Vineland School. In his own investigation twenty years later (1934) Doll reported finding only 30 per cent of the inmates who could be classified as heredity cases, 30 per cent secondary (postnatal trauma, infections, and endocrine disorders), and 40 per cent unknown or uncertain. Some corroboration of Doll's figures was provided by Penrose,³⁰ who in his own investigation of 513 institutional cases found that the origin of intellectual status was uncertain in approximately 62 per cent of the cases. It was impossible to distinguish between environmental and hereditary influences responsible for the disturbance in most cases. These conclusions bear out the verdict of a number of psychologists that many cases of feeble-mindedness previously considered hereditary apparently are the result of prenatal, natal, or postnatal factors.

EVIDENCE FROM STUDIES OF TWINS

In perhaps no other area is there more opportunity for holding one of the factors constant in an investigation involving the nature-nurture controversy than in the study of identical twins. Though there are few twins available for study and ascertaining the exact effect of the environment on the development of each twin is difficult, studies of twins offer a means of controlling hereditary factors. The difference between identical and fraternal (dizygotic) twins can be indicated by stating that whereas the former are the result of the fertilization of one ovum which subsequently splits into two similar ova, fraternal offspring develop when two different ova are fertilized by two distinct sperms. Identical twins thus are considered to be more nearly alike in inheritance than fraternal twins. Since the latter develop from different sets of chromosomes, so far as inheritance is

²⁹ E. A. Doll, Department of Research Annual Report, 1933-34, *Training School Bulletin*, 31:112-123 (1934).

³⁰ L. S. Penrose, *Mental Defect*, New York: Farrar & Rinehart, Inc., 1934.

concerned they are not different from ordinary brothers and sisters (siblings). Fraternal twins, although born at the same time, do not necessarily look alike nor are they always of the same sex. Thus the more fruitful sources of data appear to be in investigations of like twins.

In the most comprehensive investigation of twins yet undertaken, a study now accepted as a model of its kind, Newman, Freeman, and Holzinger³¹ reported data for fifty like-sex fraternal twins and fifty identical twins reared together. They also presented important evidence with respect to differences between nineteen pairs of identical twins reared in different surroundings. The majority of the latter twin pairs had been living apart for many years (from eleven to fifty-three) and were studied when they were fully developed adults. More than half of these twins had been separated during the first year of life, and seven others had been parted before they were five years of age. No outstanding differences in religion or racial composition were present among these twins, nor were the home environments radically dissimilar.

Newman³² has reported a study of identical twins. Twin girls A and O were reared apart from the age of eighteen months until they were reunited at about eighteen years. During their separation A lived in a crowded middle-class section of London where, because of the first World War, living standards were comparatively low. Her education in "home arts" was haphazard owing to the war. In the meantime she underwent the ravages of a number of childhood diseases which included measles, tonsillitis, whooping cough, and scarlet fever. Twin O, unlike her sister, was adopted by a socially well-accepted family of Chelsea, Ontario (Canada). There she enjoyed the advantages not only of a superior home but of a thoroughgoing academic education. In the end both girls experienced nine years of schooling, which culminated in a secretarial course leading to employment as a stenographer.

When studied by Newman and his assistants these identical twins were found to be very similar in temperament and emotional stability, but considerably unlike in educational and intellectual devel-

³¹ H. H. Newman, F. N. Freeman, and K. J. Holzinger, *Twins: A Study of Heredity and Environment*, Chicago: University of Chicago Press, 1937.

³² H. H. Newman, "Mental and Physical Traits of Twins Reared Apart," *Journal of Heredity*, 1929, 20:49-64, 97-104, 153-166.

opment. It is evident from such data that marked differences in education and social environment can bring about a difference in intellectual achievement in two individuals presumably similarly endowed by inheritance. However, as Müller³³ and Burks³⁴ have shown, not all identical twins reared apart have manifested marked differences in intellectual status. But the evidence from twin studies does appear to bear out the importance of the environment in the development of the various manifestations of personality.

EVIDENCE FROM BARREN ENVIRONMENTS

Gordon conducted one of the first studies of the influence of a barren environment in connection with the mental development of English canal-boat and gypsy children.³⁵ From the results of Stanford-Binet tests administered to these children he found that in general the longer the children had lived in their surroundings (especially canal-boats), the lower were their I.Q. scores. It was Gordon's belief that the children in question did not become progressively duller with age; instead he submitted that mental tests do not measure native ability independently of educational opportunities. Thus the longer inadequate conditions in this respect are in operation the less opportunity there is for making progress intellectually.

Sherman and Henry made an extensive study of isolated children in mountain hollows in a region (Virginia) not too far removed from the national capitol at Washington, D.C.³⁶ They revealed that in primitive and isolated communities five- and six-year-old children made normal I.Q. scores, but that their older siblings earned progressively lower mental test scores as their ages advanced. Sherman and Henry reported that the more primitive and isolated the community, the greater the decline in intelligence quotients for the ascending age groups. In fact, even in tests of performance (form boards) the younger children were superior to their older classmates. The investigators held, however, that the key to their data was the fact that no appreciable differences exist in intellectual ability be-

³³ H. J. Müller, "Mental Traits and Heredity," *Journal of Heredity*, 1925, 16:433-448.

³⁴ Barbara Burks, "Personality Determinants in a New Case of Identical Twins Reared Apart," *Psychological Bulletin*, 1940, 57:522 (abstract).

³⁵ H. Gordon, *Mental and Scholastic Tests Among Retarded Children*, Bureau of Education, Educational Pamphlets (London), No. 44, 1923.

³⁶ Mandel Sherman and T. R. Henry, *Hollow Folk*, New York: Thomas Y. Crowell Company, 1933, pp. 121-37, 193-208.

tween children of different ages, or between city and country children.

A series of investigations concerning child development and environment has been conducted by psychologists at the University of Iowa. The major contribution to this series was made by Skodak, who reported on the results of the placement of 154 foster children, 140 of whom were illegitimate, in average and superior foster homes for a period of between four and five years.³⁷ The children were secured from socially inferior mothers whose intelligence quotients were all below normal (87.7 average). Of the mothers, 16.3 per cent were borderline cases intellectually, and 13.8 per cent were reported as being feeble-minded. The true fathers of these children (88 per cent of whom were known) had completed, on the average, ten grades of schooling. No figures concerning their I.Q. scores were available in the study.

The foster children were adopted into socially adequate and superior homes. For example, the fathers rated 3.1 occupationally, a status which is 1.7 points above the general population. In addition, both foster parents had had, on the average, twelve grades of schooling. In this superior environment the children were tested, first when they were one year and seven months of age (on the average) and again when they had reached a mean age of four years and one month. The measures used were the Kuhlmann-Binet individual mental test for children under three and one-half years of age and the Stanford-Binet scale for those above that age. It was found that despite the low I.Q.'s of the true mothers and the lack of education of the true fathers, the children averaged an I.Q. score of 116 on the first test (after approximately a year spent in the foster home) and 111.5 on the second test (following about a three and one-half year stay). On the first test 65 per cent of the children scored above 110 I.Q., and 41 per cent made scores of 120 or above. Only 4 per cent were below 90 I.Q. and none went below 80 I.Q. A follow-up study made when the children were seven years of age failed to indicate that any deterioration had taken place in their status as to I.Q. scores.³⁸ The I.Q. scores also became more stable as the children grew older.

³⁷ Marie Skodak, "Children in Foster Homes: A Study of Mental Development," *University of Iowa Studies in Child Welfare*, 1939, Vol. 16:No. 1.

³⁸ Marie Skodak and H. M. Skeels, "A Follow-up Study of Children in Adoptive Homes," *Journal of Genetic Psychology*, 1945, 66:21-58.

It would seem from these and other studies that the aspect of personality called intelligence (as defined in terms of test scores) is subject to environmental change. Apparently the hereditary factor is not as confining in this respect as formerly was supposed. However, this is but one of the many aspects of personality development which apparently is influenced by environmental factors.

SUMMARY

This chapter dealt with the influence of the environment upon personality. It was found that the environment could, theoretically at least, be divided into areas and examined. The physical environment affects all human life. The conditions it imposes upon living are evident in any culture, which constitutes a reflection of the adaptations man makes to his environment. The artifacts produced by the culture permeate every aspect of social life—the area of the environment generally delineated by psychologists for the study of personality. Society defines the code of ethics which limits the behavior of its members. Thus individual behavior is subject to both indirect and direct social forces.

One school of psychology, the behavioristic, while differing in methods and beliefs from older views, holds that society can be modified in such a way as to control behavior. Thus its adherents study the movements of the organism within its environmental setting. For convenience in measurement they have analyzed the movements of the organism into units called S and R. Considered in this way, man is seen as an organism whose actions are dictated by forces from the environment working upon it and which by the very nature of its physical processes is forced to respond. The behaviorists contend that this interaction is a regulatable affair. Thus lawfulness is the key to understanding behavior and personality, a term which is but a convenient symbol for describing this behavior.

Studies of the effects of superior and impoverished intellectual environments have indicated that in this area of personality too, educational and other forces impinging on the individual exert an influence on development. Evidence from investigations of twins, barren environments, and foster-home placement bears out the hypothesis that the environment is a major factor in the formation of personality.

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6

Cultural Determinants of Personality

CULTURE MAY be defined as a pattern of learned behavior the specific elements of which are community property to be shared and transmitted by a particular social group. The crux of the relationship between the individual and the community is the extent to which culture, operating through social institutions, is responsible for the formation of personality. According to Frank, culture is a coercive influence dominating the individual and molding his personality by virtue of the ideas, conceptions, and beliefs which are brought to bear on him through communal life.¹ He sees culture as built into the organism as a series of definite physiological adjustments to needs arising directly from the community. While the psychological processes are recognized as constituting dominant factors in personality, it is the culture which, by its manipulation of these processes, determines the direction of personality development.

CULTURE AND THE COMMUNITY

Linton views the role of the individual in his community as a dual one: (1) as a member of a particular group the individual helps to preserve it, and (2) as an individual whose behavior is limited by

¹ L. K. Frank, *Society as the Patient: Essays on Culture and Personality*, New Brunswick: Rutgers University Press, 1948. See also, by the same author, "Cultural Control and Physiological Autonomy," in Clyde Kluckhohn and H. A. Murray (Eds.), *Personality: In Nature, Society, and Culture*, New York: Alfred A. Knopf, Inc., 1953, pp. 119-

the group, he is instrumental in changing it.² Culture thus may be considered the dominant factor in establishing the basic personality patterns for various groups, as well as building up the series of personalities characteristic of each. Linton also notes that identical communities have formed different types of personalities by virtue of the different experiences found in them. To him, culture has two aspects: (1) the *overt*, which is material and behavioral, and (2) the *covert*, or the psychological phenomena of the group. The contact with and the experiences derived from the overt culture of his society recreate in each individual the shared psychological states which make up the covert aspect of that culture.

John Dewey frequently emphasized the point that the mature members of a society could transmit the culture of their group only through sharing it with all those concerned. By sharing business ventures, church activities, and recreational pursuits an individual assimilates the knowledge and values of his group.

On this basis the impact of culture on the formation of personality has resulted in different social groups having norms peculiar to them alone, the members of different groups differing in personality pattern, and much the same range of variation and personality types being found in every group. Mumford sums up the matter thus:

On the basis of . . . organic existence the human personality emerges out of the matrix of communal functions and activities; and with it certain conditions, essential to all life, become intensified and heightened; for in man there is a sharpening of sensory equipment, a sensitizing of emotional reactions and feelings, a finer capacity to assimilate and recall events, even single experiences, an ability to project organic functions into extra-organic forms, a capacity to transfer experience into symbols and symbols into experiences.³

CONFORMITY AND PERSONALITY DEVELOPMENT

In a large-scale analysis of the development of an Australian rural community, the mechanisms of social control, and the evolution of ideologies and of attitudes toward other nations, were ascertained.⁴

² Ralph Linton, *The Cultural Background of Personality*, New York: Appleton-Century-Crofts, Inc., 1945, p. 32.

³ Louis Mumford, *The Conduct of Life*, New York: Harcourt, Brace and Company, Inc., 1951, p. 33.

⁴ O. A. Oeser and F. E. Emery, *Social Structure and Personality in a Rural Community*, New York: The Macmillan Company, 1954.

The study revealed convincingly how the characteristic patterns of behavior in both children and adults had developed in terms of family traditions and the social mores. For example, the allocation of economic duties (as well as those relating to power and responsibility) was shown to be related to the problems of family solidarity and to the differences between farm and town families. As the investigators brought out, since the family code covered most of the everyday interpersonal relationships, there was little opportunity here for individual differentiations. Family influence was so strong that children become recognizable because of manifesting certain traits associated with the entire family. In fact, the town itself tended to build up certain qualities which subsequently adhered to its members.

Another example of the influence on personality development of the requirement to conform may be seen in the Confucian rituals of ancient China.⁵ For many centuries Chinese behavior was molded largely by the teaching of Kung Fu-tse, better known in the Western world as Confucius. Briefly, in ancient China religion prescribed an elaborate ritual for the king in his dual capacity as ruler and as priest. This ritual, used especially during sacrifices, was given a rational explanation by Confucius and his followers in order that there should be a degree of moral guidance of the king, both as temporal and spiritual ruler. The code of ethics laid down by the Confucian school thus purported to explain how every act on the part of the king-priest affected the workings of the universe. The objective of this procedure appears to have been the provision of a means for influencing the king's behavior in relation to both justice and morality. In fact, it hardly is possible to discuss Confucianism without first referring to the rituals involved.

This ritualistic origin accounts for the primary role of "face" (defined as making allowance for the dignity of the individual) in Chinese behavior. Confucianism is centered in morality, and it is this morality which has so influenced personality. Good behavior, at least for the Confucianist, is behavior in accord with one's moral relationship to other people. The basis of this morality is the sanctity of human relationships. Confucius outlined five fundamental dimensions of human relationships, i.e., between ruler and vassal, father and son, elder and younger brother, husband and wife, and friend

⁵ H. Nicolson, *Good Behavior*, London: Constable & Co., Ltd., 1955.

and friend. He added a sixth relationship to serve as an index for student behavior—the relationship between master and disciple.

The above relationships, said the venerable Chinese philosopher, were to be regarded by all members of a group as carrying with them obligations which the “well-behaved” individual lives up to, to the best of his ability. The individual must regard these relationships as both sacred and enduring. Stated in simple form, this meant that a son must always treat his father with respect even if the father did not conduct himself in harmony with the expectations of his society. Again, one must always consider friendship sacred, no matter how depraved a given friend may have become. Thus behavior as exacted in ancient Chinese culture was neither realistic nor based on personal feelings or inclinations. Instead, the individual member of the group conformed to certain standards of behavior, artificial and frustrating though these standards may have been.

SOCIETY AND STANDARDS OF BEHAVIOR

Standards of behavior thus are seen as arising in all societies. “Good” behavior is defined in terms of these criteria and the individual is highly conscious of them. This means that certain rules of conduct must be laid down by someone (or more than one person) who is regarded, if not as a king in his own eyes, at least, as embodying in himself some regal authority. Personality, then, develops according to prescribed standards of behavior, the origin or validity of which the individual neither knows nor questions. The more insular the society, the more rigid the code of behavior.

COMMUNITY ORGANIZATION

The relationship between an individual and his community is dynamic in nature and is carried out through various group devices (laws, mores, manners, taboos, etc.) and institutions (home, school, church, etc.). It is in group activities that the individual achieves his stature as a personality. The community is the direct scene of his operations, a scene from which he takes his cues and to which he in turn contributes. Groups, like individuals, have particular ways of insuring the development of their children. In a group this development takes place through the acceptance of common goals which are safeguarded by communal laws designed to insure group conformity.

Giddings writes:

Conformity to type is regarded as contributing both to the safety and to the efficiency of the group. Out of this notion grow conscious efforts to increase conformity, to scrutinize the "kinds" and to limit the range of variation. A social constraint is consciously evolved which exerts its pressure upon all component units of the group. As in the case of environmental constraint, social constraint affects selection. In the long run it makes itself felt in the selective death-rate. The kind or type that survives under social pressure is believed by the conscious units of society to be relatively efficient in the struggle for existence. It is supposed also to be relatively individualized. A group or community in which increasing individualism is secured without imperiling race maintenance thinks of itself as progressive.⁶

THE FUNCTION OF GROUP CONFORMITY

Group conformity is a device for the maintenance of the community and the stamping of personality patterns on the members of the community. This conformity is often accomplished through social organizations within the community proper. These organizations—the church, the lodge, the club, etc.—are a form of institutional life through which the members are directly indoctrinated. As Znaniecki has said:

Every institution represents the enduring realization of an objective idea—not merely of a subjective aim—as a task or an enterprise to be fulfilled in the empirical social world. . . . Any social group, from the family to the church, the State or the nation . . . serves an objective idea. An institutional group involves four stages in the realization of its basic idea or goal. They are: the growth of "communion" among the individuals who share an idea and tend to act for it solidarily as a whole; the formation of an organized superstructure which embodies the group's power of collective action and makes it a lasting corporate unit; the development of a moral order of voluntary cooperation between the members and the organized superstructure, which transforms the latter into a "collective moral person"; and, finally, the external recognition of the group already internally incorporated as "juridical personality," a social unit in relation with other units.⁷

⁶ F. H. Giddings, *Studies in the Theory of Human Society*, New York: The Macmillan Company, 1922, pp. 205-206.

⁷ F. Znaniecki, "Social Organizations and Institutions," in G. Gurvitch and W. E. Moore (Eds.), *Twentieth Century Sociology*, New York: The Philosophical Library, Inc., 1945, pp. 187-188.

COMMUNICATION AND PERSONALITY DEVELOPMENT

The exchange of thoughts and feelings via the spoken or written word is of course a strong force for group cohesiveness. In complex societies the mass media are strategic devices for maintaining (or changing) group identities and loyalties. Their effectiveness has been particularly demonstrated in times of crisis when ordinary alliances have been broken because of the lack of communication or when the media have been instrumental in uniting ordinarily diverse groups.⁸ Few of the organizing institutions of the community could long be effective without mechanized channels for communicating with their members.

Mass media also may constitute direct influences on personality development. A society's literature is believed to be essential to the defining and reinforcing of a cultural group's heroes (ideals) and villains. By providing outlets for emotions the direct expression of which is prohibited by society, TV may be acting as a safety valve for the individual.⁹

Studies of public opinion have indicated the effects of propaganda. The various opinion polls have shown how the "mass mind" may be swayed with respect to public issues. Governments by dictatorship have demonstrated that media of communication can be successfully employed to condition beliefs, attitudes, and even overt behavior. On the other hand, communication has served not only to weld a group together but to disseminate such information as obviously is useful to the people.

PLAY AND SOCIALIZATION

The inclination to play appears to be universal among children and widespread among adults. Modern psychology holds that bodily activity in the form of unrestrained play not only is desirable but necessary to physical, emotional, and social development. Through play the individual learns many neuromuscular and social skills.

If an individual is permitted to develop physical and social skills on the playground, he is in a position to gain the status so necessary

⁸ E. Shils, "Cohesion and Disintegration in the Wehrmacht," *Public Opinion Quarterly*, 1948, 12:280-315.

⁹ Eleanor Maccoby, "Why Do Children Watch Television?" *Public Opinion Quarterly*, 1954, 18:239-244.

to his psychological integrity. Persons who have had little or no opportunity for play or recreation usually find it difficult to cooperate satisfactorily with other people. They are likely to seek outlets for approval and recognition in the less frustrating world of fantasy. Unsocialized persons in many instances are shy, sensitive, and suspicious. By teaching the child how to live with his peers, pleasurable play is one way of contributing to personality adjustment.¹⁰ The family and the school also are key institutions in the socialization of the child, but they will be discussed in greater detail in later chapters of this volume.

In some cases school playgrounds are open to the public, together with trained personnel, after school hours. In other instances facilities are available in community houses which are open to the public during the evenings. In some cities the schools and the community cooperate in keeping open both playgrounds and community houses. Neumeyer writes,

The promotion of character building and citizenship training through group work and recreation has long been recognized as a preventive program. . . . [The program of group work and recreation agencies is] a positive program of providing opportunities for boys and girls to have fun, to make friends, to acquire skills in various forms of recreation, and, as a step toward the development of social responsibility, to experience the democratic process in small self-motivated groups.¹¹

COURTSHIP, MARRIAGE, AND PERSONALITY

Mating and procreation are biological functions, whereas courtship and marriage are social institutions. From this situation arise many conflicts affecting personality. Premarital relationships between the sexes are governed by convention in much the same way as marriage itself. However, racial, religious, and economic groups maintain different standards in this respect. The girl who makes her formal entrance into society at a lavish debut experiences different relationships with men friends than does one from a lower income group who must confine her ambitions to a more modest plane. In fact, the social role a young woman enjoys influences her personality in no

¹⁰ S. R. Slavson, *Recreation and the Total Personality*, New York: Association Press, 1946.

¹¹ Martin H. Neumeyer, *Juvenile Delinquency in Modern Society*, Princeton, N. J.: D. Van Nostrand Co., Inc., 1949, pp. 278-279.

small measure. Long before courtship days the social station of a given child makes its imprint upon his or her personality. It is obvious that the folkways of one's social status serve as a foundation for behavior during courtship.

MILNER'S STUDY

An analysis designed to evaluate the effects of "social class" and "sex role" upon personality adjustment has been reported by Milner. This investigator secured her data from the extensive researches of the Committee on Human Development of the University of Chicago (the Midwest Research Project). As part of this investigation a group of 30 early-adolescent youths from the upper and lower middle social class had been studied by the use of various measures.¹² It was data from these measurements which Milner evaluated.

Milner assumed from the outset that both sexes in the group she evaluated would be marked by distinctive characteristics, also that each person would exhibit the marks of the social level from which he came. From her analysis she concluded that "definable differences in the group-typical, as well as in the sex-typical constellations will be found to exist among adolescents of the various social status levels. . . ." Thus comparative studies reveal the distinctive imprint of social level upon personality pattern. The American community being what it is, a high premium is placed upon securing a mate of proper social standing. Young people from different strata of society who fall in love with each other may be forced by family and community pressures to discontinue their courtship—a course which often results in emotional maladjustment.

COURTSHIP AND ECONOMIC INDEPENDENCE

Another problem of courtship in our society involves the necessity of economic and financial independence. In many instances young couples either must wait years to marry or find it necessary to break their engagement. Unfortunately, withdrawal from the emotional involvements of courtship may have consequences damaging to the

¹² The data themselves were amassed through such measure as interviews, psychometric methods (intelligence, aptitude, and achievement tests), subjective reports, projective tests—in fact, practically all of the battery of tests and observations for exploring aspects of personality. (E. Milner, "Effects of Sex Role and Social Station on the Early Adolescent Personality," *Genetic Psychology Monographs*, 1949, 40:231-325.)

personality of sexually mature and otherwise well-developed young people. In the United States, a country which places a premium upon romance, such emotional disturbances usually are more intense than in countries which deal with courtship in much different terms. In this country it is often erroneously believed that "love forgives all," and that a mutually shared interest between two people of opposite sex will automatically result in a happy marriage.

The recognition of these and other problems of courtship by society has resulted in much constructive community action. For example, some schools are offering courses in which free discussion of the problems and responsibilities of courtship and marriage are conducted under the supervision of teachers who are competent regarding principles and practices. Counseling bureaus and adult-education centers now offer information to prospective brides and grooms, as well as to young people who are more than casually interested in each other.

Research centers have taken courtship seriously, and marriage-readiness tests concerned with status as to personality and emotional maturity are being developed. Communities are awakening to the fact that much more than love is involved in the making of a compatible and lasting union. Studies have been made concerning the practical problems involved in courtship and marriage for the purpose of making recommendations for concerted action in behalf of their solution through civic bureaus, the press, motion pictures, club groups, and other community agencies.¹³ Even the armed forces have worked out programs which include counseling those in the military service who are contemplating marriage.

MARRIAGE AND PARENTHOOD

Although many modern households are without children, the social and biological purposes of marriage still are widely regarded as centering on the bearing and rearing of offspring. The principal concern of the state in the marriage relationship is that of possible offspring. Children of divorced or separated parents are likely to become wards of the state, just as are those born out of wedlock. Mar-

¹³ See, for example, Canadian Youth Commission, *Youth, Marriage and the Family*, Toronto: Ryerson Press, 1947.

riage is also to some extent a business matter, and with the development of community property laws and women's rights, extensive civil controls have been imposed in connection with marriage and divorce action.

In America young people of different social groups tend to marry within their group, yet it is no less a fact that a great deal of "intermarriage" also takes place. The movement of an individual of a given group to a different level of society is characteristic of our culture. Thus personality characteristics are fluid. In the United States the daughter of the boss in some instances does marry one of the workmen. In Europe and elsewhere where social levels are more crystallized, such intermarrying is rare. Thus, in this country, children are born who must react to different personality patterns in their two parents. America, despite some slowing down in this respect, still is a melting pot of cultures. Economic ideologies, religious dogmas, metropolitan environments, and the advance of science all have contributed to the changed nature of the family. Such factors are of primary importance in family life, as well as in the personality development of the individuals concerned.

Although the institution of marriage as such is undergoing drastic changes, parenthood, because of its relation to the developing personality of the child, has come to occupy a central role. There is every indication that the emotional maturity and sense of security of an adult are founded on previous parent-child relationships. Society and its institutions—the school, the church, the community, and the courts—thus are tending toward organized community action in terms of planned and intelligent parenthood. The importance of such planning is underscored by the following passage from Rivers:

Each child, by virtue of being born as a child of marriage, takes its place in the social structure. Certain members of the group are its relatives; others are not necessarily relatives, but they belong to the same clan or society. Certain members of the community of the opposite sex are possible mates, while others are forbidden: all these and other such relationships are determined by the act of birth into a family group. Looked at from this point of view, marriage may be an institution of the most definite and highly organized kind.¹⁴

¹⁴ W. H. R. Rivers, *Social Organization*, New York: Alfred A. Knopf, Inc., 1924, pp. 37-38.

CULTURAL DETERMINANTS OF PERSONALTY

That social status plays a significant role in personality development is generally accepted. Different patterns of behavior are manifested by individuals from different social strata, and personality in any given instance cannot be understood without taking this fact into account. Although it is difficult to classify society into definite social classes, certain characteristics tend to be associated with given groups. As has been stated,

A social class is probably not just a random sample of the total population of a society, with respect to basic personality structure. It shows systematic differences from other social classes of such a significance that one might find, for example, 50 per cent of one social class sharing a certain basic personality configuration, and not more than 35 per cent of any other class sharing this same configuration. Presumably, this degree of homogeneity is due to the cultural similarity of personality-forming experience within a social class.¹⁵

EVIDENCE FOR SOCIAL STRATIFICATION

Gough recently gave the Minnesota Multiphasic Personality Inventory to 223 high-school seniors (90 boys and 133 girls) from a Midwestern city with a population of 25,000. The Sims Score Card was used as a measure of social status. The scores of the top 38 and bottom 38 students were used as the high- and low-status criteria. Gough discovered that 34 items out of 550 on the MMPI showed differences between the two groups which were statistically significant. The differentiating items were grouped into five levels: (1) positive literary and aesthetic attitudes, (2) social poise and self-confidence, (3) denial of fears and anxieties, (4) broad-minded and frank attitudes toward moral, religious, and sexual matters, and (5) dogmatic, self-righteous opinion. These descriptive levels apply to the choices of the higher-status group. Gough found little or no statistical differences on any of the MMPI scales (taking each scale as a whole) between high- and low-status groups.¹⁶

Despite the dangers of categorization, apparently some identifiable factors emerge out of the social position of the individual. Since survival necessarily involves an adaptive process, an individual's

¹⁵ R. J. Havighurst, "Social Class and Basic Personality Structure," *Sociology and Social Research*, 1952, 36:355-369.

¹⁶ H. G. Gough, "A New Dimension of Status: I. Development of a Personality Scale," *American Sociological Review*, 1948, 13:401-409.

movements tend to conform to the particular milieu in which the adaptation takes place. Social behavior represents this adaptive process from the point of view of interpersonal relationships. The individual's personality reflects the values and manners of the social group of which he is a member.

Cattell has suggested that there is a correlation between social class and type of psychosis.¹⁷ He examined certain researches dealing with aggressive and withdrawing tendencies and with psychological maladjustment. While he found that there was a relation between social class and type of psychosis, he noted a less recognizable connection between social class and type of neurosis. Cattell's conclusions point to the existence of distinctive personality characteristics which obtain among people of a given social class.

Further evidence concerning the influence of social structure on personality has been presented by Springer in connection with a study of general social status versus the emotional stability of children.¹⁸ He analyzed the relationship between social status and personality test scores (Brown Personality Inventory for children) of 327 boys and girls from homes of low social status and 473 boys and girls from the middle income group. The subjects were 9-15-year-old New York City school children. The fathers of these children were rated as to occupational status (Barr Scale). Springer's findings revealed significantly greater mean neurotic scores for the low-status group than for the middle-income group.

It would appear from the above study that social class influences the emotional stability even of children. Since children in lower-status groups often feel less secure than others in connection with their daily activities, and in view of the fact that a sense of security plays a leading part in the maintenance of emotional stability, this should not be surprising. As Kardiner writes, "The security system of the individual can be defined as that system of adaptations which insures the individual's acceptance, approval, support, and development of resources along specific lines."¹⁹

¹⁷ R. B. Cattell, "The Cultural Functions of Social Stratification: II. Regarding Individual and Group Dynamics," *Journal of Social Psychology*, 1948, 21:25-26.

¹⁸ N. N. Springer, "The Influence of General Social Status on the Emotional Stability of Children," *Journal of Genetic Psychology*, 1938, 53:321-328. See also N. R. Moddy, "Comparison of Children's Personality Traits, Attitudes, and Intelligence with Parental Occupation," *Genetic Psychology Monographs*, 1943, 27-28:3-65.

¹⁹ A. Kardiner, *The Individual and His Society*, New York: Columbia University Press, 1939, p. 110.

RESEARCHES ON SOCIAL STATUS AND
PERSONALITY

Leshan has suggested that there are "different personal time orientations in different social classes. . . ." Judging from his findings, social classes differ in their outlook on life in terms of both frustration and gratification. For example, tension and relief occur in quick succession in the "lower-lower" class, presumably because people in this group see no great chance of success in the future and feel that one should live while one can. "In the upper-lower, middle, and lower-upper classes, the orientation is one of much longer tension-relief sequences."²⁰ The future is reasonably well assured for these classes, thus some kind of planning can take place.

One of the more extensive studies of the effect of social status on personality patterns was undertaken by Estvan.²¹ This investigator paired 60 upper-status and 60 lower-status children on the basis of intelligence quotient, chronological age, and grade, in an effort to discover to what extent these factors are associated with awareness of such social problems as "having a place in which to live," "living in a 'good' section of the community," etc.

All of the subjects were white nonethnic ten- and eleven-year-old children from the fourth, fifth, and sixth grades of a public school. To emphasize the desired contrast the children were chosen from two extremes of social status in a typical Midwestern city of approximately 85,000 population. The instrument of measurement used was an interview based upon two pictures, one primarily concerned with the problem of clothing and the other with a composite of several factors related to poverty. The questions asked were, "What do you see in the picture?" "What other things do you note?" "How do you feel about that?" etc. At the conclusion of his study Estvan found that (1) whereas the upper-status children were more conscious of the qualitative aspects of certain problem areas, the lower-status children exhibited greater awareness of the quantitative aspects; (2) in contrast to the lower-status children, who visualized poverty as being near at hand as well as far away in other countries, the

²⁰ L. L. Leshan, "Time Orientation and Social Class," *Journal of Abnormal and Social Psychology*, 1952, 47:589-592.

²¹ F. S. Estvan, "The Relationship of Social Status, Intelligence, and Sex of Ten- and Eleven-Year-Old Children to an Awareness of Poverty," *Genetic Psychology Monographs*, 1952, 46:7-57.

upper-status children thought of poverty as existing generally in this country; (3) the lower-status children were more conscious than others of the personal and social disorganization brought about by poverty.

SOCIAL STATUS AND PERSONALITY

Different behavior is manifested by individuals from different social positions. Although the class system is less rigid in the United States than in many other parts of the world, vague social class distinctions do exist.²²

HOLLINGSHEAD'S STUDY OF ELMTOWN YOUTH

One of the most ambitious projects in the field of social relations was a study sponsored by the Committee on Human Development of the University of Chicago under the leadership of Professors Havighurst and Warner. A part of this larger study, reported by Hollingshead, was designed to analyze the manner in which "the social system of a Middle Western Corn Belt community organizes and controls the behavior of high-school-aged adolescents reared in it."²³

The focal point of the study was a group of 735 adolescents (ages thirteen to nineteen) from 535 different families and about equally divided as to sex. Although the adolescents formed the basis of the study, Hollingshead's purpose was to analyze them as they were affected by the larger context of their social group. Thus he also made an extensive examination of Elmtown's social structure. The data utilized were derived chiefly from observations offered by participants themselves (the entire town cooperated), scheduled interviews, official reports, tests, autobiographies, the local newspaper (*The Elmtown Bugle*), historical pamphlets of the town and its antecedents, and visits with the subjects themselves, their parents, and townspeople. Generally speaking, "Elmtown and its dependent institutional area may be said to be a 'typical Middle-Western community' functionally, structurally, culturally, and historically." It was assumed at the outset that the home and neighborhood were the primary socializing influences of Elmtown's youth, and also that these

²² Kenneth Eells, et al., *Intelligence and Cultural Differences*, Chicago: University of Chicago Press, 1951.

²³ A. B. Hollingshead, *Elmtown's Youth*, New York: John Wiley & Sons, Inc., 1949.

influences were reflected in the adolescents' behavior. Hollingshead wrote that "the behavior patterns and conceptions of right and wrong, of self, of others, and of society learned by the child in the home and the neighborhood are carried into the school, the church, and other areas of community life."²⁴

For the purposes of his research Hollingshead divided the people of Elmtown into five social classes. "The main aspects of the social structure are linked together by the evaluation system which characterizes the culture" said Hollingshead. "'Who is Who,' and 'What is what' are determined by the way Elmtowners evaluate persons, ideas, things, functions, and each other's actions."²⁵ This statement is significant in that it indicates how deeply social stratification has taken place in an American community. The end of the frontier era has brought about a settling down of the American society, a phenomenon of great import to personality formation. For it means that social position plays a greater role than ever in personality development. The expanding society makes for a more flexible personality by giving greater encouragement to such qualities as initiative, resourcefulness, etc. But if Hollingshead's study is any indication, American society, at least in such communities as he describes, is becoming more and more stratified.²⁶ And according to other psychologists who are concerned with this aspect of the cultural process, along with this stratification there are appearing manifestations of the struggle to keep one's role in a given class or to advance to a higher one. For example, as La Barre writes, "Does not the invidiousness of success as we define it exact a fearful emotional toll in the psychological disenfranchisement of the majority of men and women, and their systematic infantilization as voyeurs rather than partakers of success?"²⁷

Class I was characterized as follows in Hollingshead's description of Elmtown's class structure: Individuals in this strata inherited their

²⁴ *Ibid.*, p. 442.

²⁵ *Ibid.*, pp. 66-67.

²⁶ As an example of this kind of stratification, Burgess and Wallin examined 1000 engaged couples to see whether there is a tendency for "like to mate with like" and concluded, "Upon the basis of present evidence 'cultural likeness' appears more important than 'temperamental or personality similarity' in marital selection" (E. W. Burgess and P. Wallin, "Homogamy in Personality Characteristics," *Journal of Abnormal and Social Psychology*, 1944, 39:475-481).

²⁷ W. La Barre, "Social Cynosure and Social Structure," *Journal of Personality*, 1945-46, 14:169-185.

wealth, lived in the finest homes in the most exclusive districts of the city, and owned two or three cars per family. With respect to community activities, although they shunned publicity, it was they who were the leaders. They owned a summer home and usually ran to cliques, were members of a fashionable church but their attendance was not regular. Divorce was considered a disgrace and the family was small (too many children divided the estate). This class took a strong and unyielding stand for lower taxes, especially with respect to public schools, since education was considered to be primarily a "polishing" function. In Class I inherited wealth was a prime requisite and adherence to class behavior an unwritten law.

Class II individuals for the most part had earned their wealth—although many were in the inherited-wealth class. These people were from professional groups or executives or in some instances proprietors of a business. They owned a car, in some instances two, and lived in a superior residential area. The men were greatly concerned with problems of civic leadership—membership in the Chamber of Commerce, Rotary Club, etc. The women were officers in Daughters of the American Revolution, Country Club, etc. The men were busy with civic responsibilities and the women leaders in their clubs.

Both sexes were active leaders in church work (predominantly Protestant). *Class II* were the "educated" group and carried the load in running the town, but usually in conformity with the wishes of those in *Class I*. *Class II* people were aware of the social distance which separated them from *Class I* and were constantly striving to narrow this gap. Civic leadership was a major source of social prestige and the means toward greater recognition.

Class III people earned from \$2000 to \$4000 per annum (1941) and were small business men and professional persons living in five- to seven-room bungalows. *Class III* members belonged to lodges and social organizations as well as being steady churchgoers. Since their families usually were larger than those of *Class II*, the women in some instances supplemented the family income by working. *Class III* members were not as well educated as those in *Class I* or *Class II*, but despite this fact were active in politics and generally operated under orders from *Class I* and *Class II*. The people of *Class III* had strong class feelings, resenting members of *Class II*, however, more than those of *Class I*. They looked down on people in *Class IV*, whom they considered lower than themselves.

Class IV was the "poor but honest" working class. They bought goods from mail-order houses, and 35 per cent owned their own homes. The men of this group ran the labor organizations, belonged to the Eagles, Redmen, Woodmen, etc. (organizations which have women's auxiliaries). One third of the families were marked by divorce, separation, or death. *Class IV* persons, as a rule, were not active in church matters, belonging to the "emotional" type of religious groups. In *Class IV* education was limited to the elementary school, since the parents did not even insist on high-school graduation. The women's place was considered to be in the home, the men being judged in terms of their ability to be "good providers." Failure of *Class IV* persons to rise to a higher social class was attributed by the upper classes to lack of capacity. However, the *Class IV* individuals were proud that they were not *V*'s, the lowest rung of Elmtown's social ladder.

Class V persons enjoyed meager earnings, the amount being \$500 to \$1500 per annum in 1941. As a result they were either on relief much of the time or merely idle for long periods. Ninety-two per cent of the men were unskilled or semiskilled laborers or machine operators, the women also working to keep the family together. *Class V* people were the recipients of charity in the form of clothing, furniture, food, etc. They were largely ignorant of or indifferent to community problems, spending a good deal of their time loafing, gambling, and in taverns. The family pattern was unstable, the men marrying in their late teens, the women in their middle teens. One-fourth to one-fifth of the births of *Class V* were illegitimate. There were few religious ties and the churches did not welcome these people. Education, both religious and lay, virtually was ignored, most of the children growing up without benefit of either type. *Class V* persons were almost removed from organized community activities, and their asocial attitude quite often brought them before the law for petty crimes. *Class V* members were looked upon as "scum" by all of the other classes, who considered them to be criminally perverted and morally delinquent—a fact which led to a sense of fatalism on the part of *Class V* members.

Having thus distinguished Elmtown's social classes on the basis of his data, Hollingshead concluded that the child's personality pattern already has been formed by the time he reaches the period designated as adolescence. For at that time, as Hollingshead wrote, "he

has developed conceptions of (1) himself; (2) the social structure; (3) his place in it along with appropriate roles and statuses; (4) forms of behavior, approved and disapproved; and (5) means of doing what he desires even though it involves the violation of law and the mores." ²⁸

THE EFFECT OF SOCIAL ROLE ON PERSONALITY

That social status plays a significant part in the attitude and behavior of the individual would seem to have been demonstrated by research. There is, in fact, a psychological unreality in the separation of personality from the social influences which directly affect it. The individual does not have a life apart from his environment. As Harsh and Schrickel comment, "Each stratum of society—each cultural sub-group—tends to leave its mark on personality through habits of speech, respect for privacy and personal property, ambition, emotionality. . . . Similarities of experience and training result in attitudes which are almost universal in certain areas or classes." ²⁹

Concern with social-class influence on personality development has been a comparatively recent phenomenon in psychological and sociological research, although many students of the subject have been aware of its implications for some time. Despite the efforts of tradition-minded investigators this feature of the culture always has played some part in the assessment of personality. The classification of individuals within all-inclusive boundaries has, of course, proved most difficult, particularly in a society which is as fluid as that of the United States. The effort to penetrate the subtle effects of social strata on personality patterns has been hampered for several reasons: (1) the democratic basis of our society which fosters the belief that all men are equal; (2) the interchange of individuals from one social stratum to the next; and (3) lack of homogeneity, particularly in urban areas.

THE CONTRIBUTIONS OF CULTURAL ANTHROPOLOGY

Anthropological data, gathered primarily but not exclusively in pre-literate societies, have substantiated the view that culture plays the

²⁸ *Ibid.*, p. 445.

²⁹ C. M. Harsh and H. G. Schrickel, *Personality: Development and Assessment*, New York: The Ronald Press Company, 1950, p. 164.

decisive role in personality formation. Ruth Benedict, for example, found that personality is fashioned out of the "raw" materials of culture.³⁰ A particular culture dictates the mores of the community, which, in turn, dominate the lives of the individual members and shape their personalities. According to Benedict, cultures constantly are being integrated into each succeeding generation in a continuous process. In fact, the only way in which we come to realize the significance of a given detail of individual behavior—for example, seeking a mate or choosing a career—is through an examination of the motives, emotions, and values which have hardened into institutions in that culture.

STUDIES OF PRIMITIVE COMMUNITIES

In her studies of primitive communities, Margaret Mead found that each culture varies in its social judgments of appropriate behavior and trains its young to conform to these arbitrary codes. She noted that personalities vary, in part at least, according to the cultural dictates of a particular group. As the result of an anthropological study in New Guinea, Mead reported on the personality differences in three societies which were geographically adjacent, but whose people did not intermingle.³¹ She found that the mountain-dwelling Arapesh men and women were unaggressive, cooperative, and affectionate to one another and to their children. The river-dwelling Mundugumor men and women, on the other hand, were aggressive and overbearing, both sexes displaying strong tendencies toward domination. In a third culture, the lake-dwelling Tchambuli, men played a passive role in the community, exhibiting many of the characteristics associated with the women of modern civilized society (e.g., vanity, possessiveness, etc.). The Tchambuli women played the dominant role in the life of the group.

Even at an early age the children of these groups manifested the same characteristics as their elders. The Arapesh child was meek, the Mundugumor child was aggressive, the Tchambuli boy was passive, and the Tchambuli girl was dominating. In the report of her findings, Mead said:

³⁰ Ruth Benedict, *Patterns of Culture*, Boston: Houghton Mifflin Co., 1934.

³¹ Margaret Mead, *Sex and Temperament in Three Primitive Societies*, New York: William Morrow & Company, Inc., 1935.

We are forced to conclude that human nature is almost unbelievably malleable, responding, accurately and contrastingly to contrasting cultural conditions. The different cultures, like the differences between individuals within a culture, are almost entirely to be laid to differences in conditioning, especially during childhood, and the form of this conditioning is culturally determined.³²

The fundamental finding of Mead's study of the sexes was the evidence indicating that, despite the constitutional differences, behavior in both men and women is primarily determined by their culture.³³ She found that sex behavior is not innately "feminine" or "masculine"; it is patterned in accordance with the dictates of a particular social group.

In a more recent study, Mead and MacGregor studied the growth and development of eight Balinese children.³⁴ The study was designed to determine how the Balinese children compared with the children from New Haven whom Gesell and his associates had studied. Gesell's major assumption is that regardless of the pressures exerted by the parents, a child's growth is fundamentally a function of an innate regulatory force which cannot be forced.³⁵ That is to say, the child develops along a spiral course determined by his growth potential.

All of the Balinese children included in the investigation were born within two years of one another and, together with their parents and siblings, were examined over a period of three years (1936-1939). In general it was concluded (1) that these subjects went through the same over-all kind of growth and development as Gesell's subjects, but that the Balinese children crawled more than their American counterparts; (2) that the Balinese children have greater ranges of digital flexibility (both toes and fingers), possibly because the Balinese culture emphasizes "flexible and partial adjustment to peripheral stimuli, and dependence upon supporting forms, calendrical, spatial, and so on, to give orientation and continuity to the person-

³² *Ibid.*, p. 280.

³³ Margaret Mead, *Male and Female*, New York: William Morrow & Company, Inc., 1949.

³⁴ Margaret Mead and F. C. MacGregor, *Growth and Culture*, New York: G. P. Putnam's Sons, 1951.

³⁵ See Arnold Gesell, *Infancy and Human Growth*, New York: The Macmillan Company, 1928. See also, by the same author, "Maturation and the Patterning of Behavior," in C. Murchison (Ed.), *A Handbook of Child Psychology*, Worcester, Mass.: Clark University Press, 1933, pp. 209-235.

ality"; (3) that there is low tonal organization in the fetus and very young Balinese infant. Thus the Balinese child is "able to assume, in the space of a few months, postures of highly integrated or tense motor attention and of complete flaccidity."³⁶

These findings indicate that the Balinese child manifests much less motor activity than the New Haven child, but that the former is capable of much greater "compliant sitting." The authors of the study believe that this condition persists because of the methods by which the adult of that particular culture carries and handles her offspring.

SUMMARY

It will have been seen that the total environment affects the human personality. It is, however, the distinctive milieu in which each individual lives which has the most immediate effect upon him. For the present we must accept this milieu, society, as a complex term. We cannot single out all of its facets.

Social institutions, however, constitute a primary influence in men's lives. The school, the home, the church, the community, in fact all of the organized aspects of group living contribute to the molding of the individual personality. Thus in any explanation of the development of personality it is essential to emphasize the institutions which directly impinge upon an individual's daily activities.

In evaluating personality, one also evaluates society. Since each individual is a reflection of the social strata in which he has played a given role, to understand personality one must examine the cultural atmosphere in which a person spent his formative years. In fact, among the more positive contributions which have emerged from research has been a new way of thinking with respect to culture and personality. Even in primitive communities the evidence suggests that personality becomes structured in terms of the social practices in vogue in a given cultural group.

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³⁶ Margaret Mead and F. C. MacGregor, *op. cit.*, pp. 181-182.

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7

The Role of the Home in Personality Adjustment

SINCE THE personality of the child is markedly influenced by the experiences he encounters in early life, the manner in which he is handled by his parents and others during his formative years is a matter of considerable moment. Questions thus arise concerning the specifications of a given home, the nature of desirable and undesirable parental guidance, what needs the home can satisfy, under what home conditions the child develops satisfactorily, and how the child acquires the social outlook which will characterize him as he develops physically, intellectually, and culturally. Answers to these and other such questions should enable us to gain an understanding of the influence of early home conditions and experiences on the child's later personality adjustment.

EARLY FAMILY LIFE AND PERSONALITY

That parents need to make provision for the care and nourishment of their children is obvious.¹ But it is not so clear that satisfactory family life is necessary for the adequate personality development of the child. It is in the home that the child first encounters the experiences which are to determine whether or not he will be characterized

¹ That the parents are primarily responsible for the child is recognized not only by psychologists in our society but by the highest tribunal as well. In a decision as recent as 1944 [Prince v. Massachusetts 321 U.S. 158], the United States Supreme Court handed down the opinion that: "It is cardinal with us that the custody, care and nurture of the child reside first in the parents, whose primary function and freedom include preparations for obligations the state can neither supply nor hinder."

by feelings of personal security and of being warmly accepted. It also is in the home that the child meets the situations which determine the extent of his sense of personal adequacy.

In a study² of the relationship between personality adjustment and the family situation of children from varying environments, Stott found a marked tendency for those from homes in which parents welcomed their friends, had enjoyable times with them, shared their joys and troubles, and participated in recreational activities with them outside the home to be well-adjusted personally and successful socially. The children from such homes were described as possessing "personal adequacy" as well as a sense of "personal responsibility" in their relationships with associates. As Stott writes,

The most important function of modern family life is psychological in nature. Family life meets certain basic human requirements more directly than is possible in any other area of life. In the family situation are provided the setting, the stimulation, and the guidance which determine, very largely, whether the child shall develop into a personally well adjusted and socially useful individual.³

This point of view has been emphasized by Saul,⁴ who believes that each individual has a unique emotional "nuclear constellation" which is the core of his personality and which arose out of the more dynamic influences and experiences of his childhood. This nucleus colors the individual's personality development and constitutes the key to an understanding of his emotional problems. It determines the points at which he is most vulnerable and under what conditions he is most likely to become a psychological casualty.

In an attempt to study the effects of infant training upon the personality of the child, Sewell⁵ selected for investigation 162 farm children of old American stock and from unbroken homes. The children were five to six years of age and the offspring of farmer parents in a homogeneous area. Personal interviews with the mothers concerning such subjects as parent-child relations, family relations, family structure, and especially personal-social experiences of the

² Leland H. Stott, *Personality Development in Farm, Small-Town, and City Children*, University of Nebraska Agricultural Experiment Station, Research Bulletin No. 114 (1939), pp. 28-34.

³ *Ibid.*

⁴ Leon J. Saul, *Emotional Maturity: The Development and Dynamics of Personality*, Philadelphia: J. B. Lippincott Co., 1947, p. 159.

⁵ W. H. Sewell, "Infant Training and the Personality of the Child," *American Journal of Sociology*, 1952, 58:150-159.

child provided Sewell with most of the data needed. The children were given the California Test of Personality, the Ford modification of the Haggerty-Olson-Wickman Behavior Rating Scale, the Wisconsin Test of Personality, and a General Adjustment Index. As a result of the scores made on these measures and the interviews with the mothers, Sewell concluded that "it is entirely possible that the significant and crucial matter is not the practices [infant training procedures] themselves but the whole personal-social situation in which they find their expression, including the attitudes and behavior of the mother." It requires a stable home and a warm and intelligent mother to bring about a well-adjusted personality in the child.

It is significant that Sewell did not consider the psychoanalytic beliefs concerning childhood as applying to this study. "Certainly, the results of this study," the investigator wrote, "cast serious doubts on the validity of the psychoanalytic claims regarding the importance of the infant disciplines and on the efficacy of prescriptions based on them."⁶

Another study of the effects of early home training has been reported by Orlansky,⁷ who sought to determine how infant care is related to the development of a well-adjusted personality. Taking his cue from the classical psychoanalytic theory that sucking, excretory, and genital functions have special significance for the future shaping of personality, Orlansky centralized his survey on determining the effects, if any, of these functions. As the result of examining a variety of studies dealing with such early nursing experiences as breast- versus bottle-feeding, length of time of breast-feeding, self-demand versus scheduled feeding, thumb-sucking, "mothering," weaning, sphincter training, restraint of emotions, and infant "frustration" and "aggression" this investigator concluded that, "personality is not the resultant of instinctual infantile libidinal drives mechanically channelled by parental disciplines, but rather that it is a dynamic product of the interaction of a unique organism undergoing maturation and a unique physical and social environment."⁸

INSTITUTIONAL CARE AND PERSONALITY

The significance for the child's personality adjustment of early family life is suggested by the outcome of institutional care. A home for

⁶ *Ibid.*, pp. 158-159.

⁷ H. Orlansky, "Infant Care and Personality," *Psychological Bulletin*, 1949, 46:1-48.

⁸ *Ibid.*, p. 39.

orphans conducted by well-trained nurses and supervisors could provide care superior, so far as housing, feeding, clothing, and the control of temperatures are concerned, to that provided by most private families or boarding-homes. Children in such institutions would be assured of regularity in all activities concerned with their physical care and development.

Levy conducted a study of the relative effects of nursery (institutional) and boarding-home care upon the personality development of children.⁹ Two hundred and thirty subjects were given the Gesell Developmental Schedule, the Kuhlmann Test of Motor Development, and the Pintner-Patterson Performance Tests. The children were grouped by age as follows: 122 less than six months of age, 34 between six and twelve months, and 74 more than twelve months. All of the children were physically sound and at least of average mental ability. All of them also had been legally entered in their places of adoption following their relinquishment by parents or guardians. Of the 122 babies less than six months of age, 83 had spent the greater part of their lives in the nursery. In the group of 34 babies between six and twelve months old, 12 had spent most of their lives in the nursery, and of the 74 children more than twelve months old, 6 had spent more than half of their lives in the nursery. "In summary," Levy writes, "it would appear that not only does institutional placement in early life affect the child's personality in later years, but that his development is measurably slowed down *from the inception* of such institutional placement, and that he does not reach his permanent home any more quickly as a result of this placement . . . it is suggested that until such time comes when baby institutions no longer exist, those which house babies attempt to simulate a baby's normal milieu as much as possible."¹⁰

EARLY MEMORIES AND FAMILY ENVIRONMENT

Pattie and Cornett asked three groups of 36 boys each (average age of 12) to give their earliest memories relating to pleasant, unpleasant,

⁹ R. J. Levy, "Effects of Institutional vs. Boarding-Home Care on a Group of Infants," *Journal of Personality*, 1946-47, 15:233-246.

¹⁰ *Ibid.*, p. 241. In a study of institutional care by Kanner, children thus reared were said to have manifested personality characteristics similar to those who had sustained head injuries early in life. The warped personalities in question were such that they became labeled with the appellation "hospitalism" (Leo Kanner, "Unwholesome Parental Attitudes and Children's Behavior," *Education*, 1949, 69:263-270).

or indifferent aspects of their early childhood.¹¹ Two of the groups of boys came from unfavorable environments (one from a slum area and the other an impoverished mountain settlement); the third group lived in favorable environments characterized by relatively stable homes and families. The investigators concluded that, "The mean percentage of memories that were unpleasant was more than twice as great in the unfavorable environment as in the favorable one (52 versus 24 per cent). Boys coming from an environment of poverty, violence, and neglect mirror that environment in their earliest memories."¹²

THE FAMILY AND THE INFANT'S NEEDS

The infant apparently has psychological needs which must be met if he is to develop into an emotionally mature adult. Just as nourishing food and appropriate hygienic conditions are essential to satisfactory physical health and development, suitable psychological experiences are imperative to adequate personality development. For it is in the home that the child first meets the situations which may give rise to tension. As Henry and Warson write,

a household may be described and analyzed as a field of forces whose essential dynamic is derived from systems of interacting persons. . . . In each of these systems each person in the household functions in a somewhat different way. The exact character of each system is eventually determined by the personality configurations of the individuals. Meanwhile the systems they set up by virtue of their personality configurations react upon them to affect their behavior. The interactional systems operative in complex households are forces that ultimately have an important determining effect on the fate of any endopsychic process.¹³

If they are to escape undue tension and feelings of insecurity infants must enjoy both organic and psychological satisfactions. Some years ago the question of the care of young children was thrown into considerable turmoil by Watson's unique concept of infant training.¹⁴ Watson asserted that the infant could be conditioned to de-

¹¹ F. A. Pattie and S. Cornett, "Unpleasantness of Early Memories and Maladjustment of Children," *Journal of Personality*, 1951-52, 20:315-321.

¹² *Ibid.*, p. 321.

¹³ J. Henry and S. Warson, "Family Structure and Psychic Development," *American Journal of Orthopsychiatry*, 1951, 21:59-73.

¹⁴ John B. Watson, *Psychological Care of Infant and Child*, New York: W. W. Norton and Company, Inc., 1928.

velop self-reliance and other desirable qualities if permitted to grow unhampered by the kisses and caresses of loving but misguided mothers. This approach, not too curiously perhaps, was acclaimed by some students as a much-needed answer to the problem of rearing children successfully. That Watson's assertions may have possessed some merit was indicated by a recent study in which two groups of 48 children, each between 20 and 62 months of age, were compared with respect to the effects of day nursery versus home care. The eating, sleeping, and elimination habits of the children were studied.¹⁵ The number of individuals manifesting the disturbances associated with being "problem" children differed insignificantly in the two groups. And, despite the fact that the environmental factors were decidedly disadvantageous in the case of the nursery children, it was concluded that, "there was no evidence to suggest that children cared for in a day nursery are more likely by reason of communal care to present developmental problems than are children cared for at home by their mothers." These findings were no doubt influenced by the fact that the working mothers of the children in the day nursery took their children home at night.

Other studies have, however, indicated that Watson's views represented an oversimplification of the problem of child rearing. Although it generally is agreed that maternal overprotection should be avoided, most students hold that physical affection intelligently expressed by the mother is essential to satisfactory personality adjustment. The child who is neglected is apparently more vulnerable than others to feelings of anxiety and insecurity.

A judicious amount of mothering is as basic to the fulfillment of the psychological needs of the child as are oxygen, food, sleep, and the like to his physical welfare.¹⁶ Since the human infant apparently needs warm acceptance and intimate responses of both a physical and psychological nature, it follows that the home is the major determiner of his sense of security. The infant's family also is in a crucial position to support or threaten his feeling of personal worth. If the conditions of the infant's home are such as to enable him to maintain adequate personality adjustment, he is on his way to satisfactory

¹⁵ N. Glass, "Eating, Sleeping, and Elimination Habits in Children Attending Day Nurseries and Children Cared For at Home by Mothers," *American Journal of Orthopsychiatry*, 1949, 19:697-711.

¹⁶ Margaret A. Ribble, *The Rights of Infants: Early Psychological Needs and Their Satisfaction*, New York: Columbia University Press, 1943.

development. If, on the contrary, the home fails to provide the infant with appropriate affectional responses and a secure sense of status, he is likely later to engage in certain defense mechanisms—in some instances, those which are socially unacceptable—designed to overcome his feeling of insecurity.

Evidently it is in the inner circle of his home that the infant or child acquires both the feeling of personal acceptance which lays the groundwork for being favorably disposed toward other persons and the expanding social behavior which insures cooperation with the larger environment outside the home. Family experience apparently determines whether the human offspring will evolve from an individualized infant to a socially adjusted adult, or will retain a degree of infantile immaturity which will prevent him from being integrated with the larger society of which he is a member. As Brower states, "Children who have not learned love in their homes often find it almost impossible fully to trust other persons. They have been hurt and they do not want another painful experience. A burned child fears the fire."¹⁷

After making a study of the influence of affectional family relations on personality development, one group of investigators wrote that, "Perhaps, after all, there is something to the old adage, 'Love casteth out all fear'."¹⁸ Brown, Morrison, and Couch made their investigation as part of the extensive research being carried out by the Committee on Human Development of the University of Chicago on factors instrumental in the growth of character and personality in a typical small Midwestern town (character being defined as reputation). Two age groups were given a preliminary form of the Family Relationships Questionnaire, which subsequently was administered to 105 ten-years-olds in the public and parochial schools and to the entire sixteen-year-old group in the local high school. Family relationships were defined operationally and were based upon such items as parent esteem, child self-expression, recognition of work and play activities, mutual sharing, and family solidarity. Following the results of this preliminary test the F-R questionnaire was revised and again administered, this time only to the children of the first group who

¹⁷ E. Brower, "The Visiting Teacher Looks at the Rejected Child," *Mental Hygiene*, 1949, 33:432-435.

¹⁸ A. W. Brown, J. Morrison, and G. B. Couch, "Influence of Affectional Family Relationships on Character Development," *Journal of Abnormal and Social Psychology*, 1947, 42:422-428.

were then thirteen years of age. The California Test of Personality was used for purposes of correlation with the F-R questionnaire. The revised F-R questionnaire sought answers substantially similar to those of the preliminary questionnaire. From the relationships derived in the investigation the authors drew the conclusion that, although the correlations were not high, they do point to "a definite association between degree of affectional family relationship and personal and social adjustment as determined by the California Test of Personality."

THE INFLUENCE OF PARENTAL BEHAVIOR¹⁹

The behavior which parents manifest toward each other is believed to be of primary significance in their children's personality development. Relatively more maladjusted children come from broken homes and homes in which pronounced marital friction exists than from homes in which there is a satisfactory relationship in this respect. Langford and Wickman write that, "Most faulty parent-child relationships are not due to stupidity, ignorance, or a puckish perverseness, but are related to the parent's own personality structure, emotional conflicts, biases and prejudices, and past experiences."²⁰ It would seem that both parents and their children require study in instances of family friction.

Sopchak²¹ investigated the relationship of parent "identification" (taking the parent as a model) and a "tendency toward disorders." He gave 108 university students—78 men and 30 women—the Minnesota Multiphasic Personality Inventory. From the results of his use of the MMPI Sopchak concluded that "tendencies toward abnormality as measured by the MMPI are in general associated with failure to identify with the parents, especially in the case of men."²² With respect to the women inventoried in the study, the general tendency was somewhat the same when their identification was with the male parent.

¹⁹ M. J. Radke, *The Relation of Parental Authority to Children's Behavior and Attitudes*, Minneapolis: University of Minnesota Press, 1946.

²⁰ W. S. Langford and K. M. Wickman, "The Clinical Aspect of Parent-Child Relationships," *Mental Hygiene*, 1948, 34:80-88.

²¹ A. L. Sopchak, "Parental 'Identification' and 'Tendency Toward Disorders' as Measured by the Minnesota Multiphasic Personality Inventory," *Journal of Abnormal and Social Psychology*, 1952, 47:159-165.

²² *Ibid.*, p. 165.

TABLE 1. RELATIONSHIP BETWEEN TYPE OF HOME AND CHILD BEHAVIOR *

<i>Type of Home</i>	<i>Types of Associated Child Behavior</i>
Rejective	Submissive, aggressive, adjustment difficulties, feelings of insecurity, sadistic, nervous, shy, stubborn, noncompliant
Overprotective, "babying"	Infantile and withdrawing, submissive, feelings of insecurity, aggressive, jealous, difficult adjustment
Dominating parent	Dependable, shy, submissive, polite, self-conscious, uncooperative, tense, bold, quarrelsome, disinterested
Submissive parent	Aggressive, careless, disobedient, independent, self-confident, forward in making friends, noncompliant
Inharmonious	Aggressive, neurotic, jealous, delinquent, uncooperative
Defective discipline	Poor adjustment, aggressive, rebellious, jealous, delinquent, neurotic
Harmonious, well-adjusted	Submissive, good adjustment
Calm, happy, compatible	Cooperative, superior adjustment, independent
Child accepted	Socially acceptable, faces future confidently
Parents play with child	Security feelings, self-reliant
Logical, scientific approach	Self-reliant, cooperative, responsible
Consistent strict discipline	Good adjustment
Giving child responsibility	Good adjustment, self-reliant, security feelings

* From M. J. Radke, *The Relation of Parental Authority to Children's Behavior and Attitudes*, Minneapolis: University of Minnesota Press, 1946, pp. 11-12.

Where the home atmosphere is tense with parental discord, the child is frequently torn between loyalty to father and to mother. In some instances there is lack of cooperation between parents in matters vital to the effective training of their children. The child may learn to use one parent against the other, one parent may use the child in a similar manner, or both parents may neglect the child. Each of the parents may be in a state of emotional tension. Under these circumstances they are often upset or irascible. Their tone of voice may be sharp and harsh and their manner of speech abrupt. Such behavior on the part of his parents tends to create emotional tension in the child and thus to interfere with the development of the sense of security so essential to satisfactory personality adjustment.

INADEQUATE IDEAS CONCERNING CHILD REARING

Many parents hold erroneous views regarding child training. Without being aware of the fact, some probably administer corporal punishment as a matter of releasing their own latent hostility. Such treatment adds to the child's resentment, which in turn may be responsible for the misbehavior the punishment was intended to correct. Giving financial rewards in an attempt to bribe children to behave in an approved manner and threatening them with bodily harm or abandonment are also believed to be damaging to character and personality. Certain parents even suppose that children are born with a sinful nature and that rearing the child essentially is a matter of preventing the appearance of evil tendencies.

THE EFFECT OF BROKEN HOMES

Few conditions are as injurious to the child's sense of security as a broken home. The departure of a parent militates against the feeling of belonging which every child needs. If the parent who remains continues to be highly disturbed the harm done may be considerable. In his daily rounds in school and in play the child of a divorced parent is often made aware of his inadequate family status. In some instances the remaining parent, in order to compensate for the loss of the other parent, becomes overattentive or oversolicitous of the child. Such a situation may lead to an excessive child-parent attachment. The necessity on the part of the remaining parent to follow an occupation also may lead to unfortunate results. The parent who must work and thus leave the child to the care of others cannot provide the full measure of psychological support so necessary to the child's sense of well-being. As Riemer analyzes such a situation,

Forced physical separation of a parent from a child, whether due to the economic situation, to health, to accident, or to war, deprives the child during a vital development period of the nurturing "influences" of one parent. The other parent, overburdened by the undue and greater responsibility cannot be sufficiently free, under such duress to "give her all" to the child. The latter phenomenon is multiplied in its damaging influences when the parents are "emotionally absent."²³

²³ M. D. Riemer, "The Effect on Character Development of Prolonged or Frequent Absence of Parents," *Mental Hygiene*, 1949, 33:293-297.

Separation and divorce in most instances are accompanied by emotional tension. Divorce is usually the culmination of a long and protracted series of bickerings, of quarrels, and even blows. A child cannot for long be reared in such an explosive atmosphere and not suffer from its effects. He sees his parents in the center of an emotional storm and may be torn between opposing loyalties. When the home finally is broken, a visit to one parent often results in a quarrel with the other parent, causing the child to suffer even more. The child must often have recourse to lies in order to preserve a measure of harmony with both parents. Marital conflicts which contribute to the development of emotional maladjustments in children thus militate against satisfaction of the child's fundamental needs and may prevent him from maintaining his psychological integrity.

INADEQUATE SEX EDUCATION

Because ours in the main is a Calvinistic society with respect to sex, this vital problem often has been treated in an unrealistic manner. In many instances the sex question has been surrounded with such mystery and so many taboos that children are motivated to secure their knowledge about sex from unwholesome sources. The adolescent will seek for answers regarding sex no matter how undesirable the source.

Rather than repress the child's curiosity about sex, intelligent procedure would dictate that he be informed that sex is one of man's basic drives and one which is necessary to the furtherance of the race. Mental hygienists believe that the child should be encouraged to deal with matters of sex as openly and unashamedly as with any other problems, also that he should be enabled to develop a sense of modesty devoid of feelings of shame or secrecy. If personality adjustment is to be safeguarded, children's questions will need to be answered frankly, not rebuffed. Inadequate or untruthful answers merely whet the child's curiosity and he may either come to distrust the parent or lose his confidence in the parent's sincerity. In either event the parent has lost an opportunity for helping the child psychologically.

OPTIMUM PARENT-CHILD RELATIONSHIPS

A good home is said to be one in which the child is given the fullest opportunity for self-expression within the limits of parental acceptance and supervision. Two parents who love one another, as well as

their child, and who are sufficiently alert in recognizing and caring for his needs have an excellent chance of seeing the child become a well-adjusted adult. In such an atmosphere the child, feeling wanted and secure, shares with his parents the sense of well-being which is essential to satisfactory personality development. If they are to be optimum, parent-child relationships should be a conjoined effort in which the activities and aspirations of the family are shared as a unit. In the adequate home parents share experiences and plans with their children. They win the confidence and respect of their children by showing a sincere interest in their activities. Such parents provide an environment in which the child receives not only acceptance and protection but optimum cultural benefits.

Blake sought to determine the effect childhood environment exerted on the scholastic aptitude and intelligence quotients of 74 advanced undergraduate and beginning graduate college students.²⁴ Information concerning conditions encountered in childhood was secured through the administration of the *Sims Score Card for Socio-Economic Status*. This scale includes items relating to parental education, father's vocation, family participation in community functions, and size and character of the environment (kind of home, books and magazines for which the family subscribes, etc.). In addition, the subjects were given a variety of scholastic aptitude and intelligence tests which emphasized linguistics as well as quantitative and perceptual skills. The data showed that favorable early surroundings apparently have a bearing on the individual's later "aptitude" in school subjects. As the investigator concluded, there were "certain conditions existing in the environment of these subjects when children which were related to their capacity to perform on various kinds of intellectual tasks as adults."²⁵

A study of some of the child-rearing antecedents of dependent and aggressive behavior in preschool age children was carried out by a group of investigators at the Preschool Laboratories of the State University of Iowa.²⁶ The study was designed to measure some of the variables involved in the relationship of "parental child-rearing

²⁴ R. R. Blake, "The Relation Between Childhood Environment and the Scholastic Aptitude and Intelligence of Adults," *Journal of Social Psychology*, 1949, 29:37-41.

²⁵ *Ibid.*, p. 39.

²⁶ R. R. Sears, J. W. M. Whiting, V. Nowlis, P. S. Sears, and others, "Some Child-Rearing Antecedents of Aggression and Dependency in Young Children," *Genetic Psychology Monographs*, 1953, 47:135-236.

methods to children's personalities or behavior." Three types of measures of child behavior were employed: (1) direct behavior unit observation in the preschool, (2) teacher's ratings, and (3) doll play. The mothers provided information concerning their children's behavior at home (e.g., nursing, weaning, eating). Teachers were asked,

TABLE 2. COMPARISONS OF THREE RESIDENCE GROUPS AS TO PERCENTAGE OF "FAVORABLE" REPORTS REGARDING EACH OF TEN HOME-LIFE ITEMS WHICH WERE FOUND MOST FREQUENTLY TO CORRELATE SIGNIFICANTLY WITH SCORES ON PERSONALITY TESTS *

Home Life Item	Total Significant Correlations	"Favorable" Answer			CR [†]
		City	Farm	Town	
	No.	Pct.	Pct.	Pct.	
1. Parents "always" welcome child's friends in the home	20	69	65	66	
2. "Often" have enjoyable times together in the home	20	47	52	37	Farm > town, 5.54 City > town, 3.40
3. "Often" go on picnics, visits, and other recreational excursions outside home	17	50	60	43	Farm > town, 6.25 Farm > city, 3.42 City > town, 2.35
4. No punishment during previous week	17	65	75	62	Farm > town, 5.12 Farm > city, 3.70
5. Shares joys and troubles with mother "almost always"	13	48	45	44	
6. Shares joys and troubles with father "almost always"	13	25	24	25	
7. Kisses mother "occasionally" or "every day"	12	83	57	75	City > farm, 10.28 Town > farm, 7.03 City > town, 3.33 City > town, 2.08
8. Nothing in mother's behavior criticized	11	65	63	59	
9. Meals at regular hours "almost always"	10	66	73	70	Farm > city, 2.57
10. Nothing in father's behavior criticized	9	64	62	56	City > town, 2.21 Farm > town, 2.21

* From Leland H. Stott, *Personality Development in Farm, Small-Town, and City Children*, University of Nebraska Agricultural Experiment Station, Research Bulletin No. 114, 1939, p. 29.

† The CR in each case is the difference between the two percentages divided by the standard error of that difference. CR's of less than 2.00 are regarded as insignificant and are not shown in the table.

for example, how often the children sought their help, asked to be near them, etc. (dependent behavior). The teachers also were questioned regarding how often the children attacked other children or their property, or manifested envy, etc. (aggression).

The authors' concluded from their year-long investigation that: (1) the kind and amount of frustration and punishment undergone by the child are major determinants of the properties of both the dependency and aggressive drives; (2) there exist highly significant sex differences in the processes by which these drives are developed (differences probably emerging as a function of the differential identifications of boys and girls with their mothers); and (3) deep and pervasive differences in the material treatment of boys and girls after the first year of life were evident.

INADEQUATE PARENT-CHILD RELATIONSHIPS

Ideally, the relationship between parent and child should continue to be one of mutual affection and respect. It appears, however, that many parent-child situations are marked by a degree of friction which virtually precludes such a desirable situation. It must be acknowledged that even with the most laudable intentions, the conflicts of life itself produce problems which tend toward frustrations in the home. Economic stringency alone can create an absence of the conditions necessary for the psychologically optimum home. Sickness and friction in parent-child relationships can also contribute to disorder in the home.

Interpersonal relationships within a family constitute complex phenomena of behavior. Why a parent favors one child and rejects another is sometimes difficult to determine. In so far as resulting maladjustment is concerned, inadequate parental behavior may be said to include (1) rejection of the child, (2) neglect of the child, (3) domination of the child, (4) submission to the child, (5) overprotection of the child, (6) projection of parental ambitions upon the child, (7) preference for a child of a given sex, and (8) parental jealousy of the child. A discussion of these inadequacies of home life follows.

EMOTIONAL REJECTION OF THE CHILD

Rejection of the child by his parents may lead to a pronounced feeling of insecurity. An insecure person has been defined by Maslow

as one "who feels unconsciously rejected and consciously unhappy, unstable and conflicted, who perceives the world and the people in it as dangerous to him, who reacts to these conscious and unconscious feelings by attempting to win back security in various ways, but who by the very reason that he attempts to win it back guarantees its perpetuation or even intensification, unless some 'good' external influence intervenes into the vicious circle to put him on the correct path."²⁷

When parents dwell upon a child's shortcomings, belittle his efforts, or discipline him severely for no justifiable reason, they are contributing to a feeling of inadequacy in the child. This rejection makes him a prey to feelings of helplessness and anxiety.²⁸ A parent who praises other children at the expense of his own child is militating against the latter's sense of self-esteem. Children are quick to sense parental attitudes and equally adept in reacting to them. The rejected child feels that he has been deserted by those closest to him and consequently may develop an outlook upon life marked by uncertainty and tension. He may manifest his feelings of insecurity in a variety of ways. As Pressey and his colleagues write, "The child may early be a victim of quarreling, weak, or self-indulgent parents; shouted at, pulled this way or that, or bribed with small favors, he lives timidly in an insecure world, or becomes a hardened little politician, exploiting his home to his own advantage."²⁹

As one writer has stated,

The sources of later personality maladjustment are not inborn. These develop as a result of the reaction of the self to the environment. Denial of genuine affection cannot be remembered by the baby, but the attitude it develops will remain. If he senses respect by his parents for his individuality, reasonable outlets (including the right to cry), responsibilities that grow as he grows but never beyond the limits of his development, Wisdom will soon be able to approach readjustments, expecting to succeed. Result: self-confidence and adaptive behavior. If the child has a series of painful and humiliating experiences, like an abrupt and ruthless weaning, feelings of guilt over inability to make progress in bowel control

²⁷ A. H. Maslow, "The Dynamics of Psychological Security-Insecurity," *Character and Personality*, 1941-42, 10:331-344.

²⁸ L. R. Walberg, "The Character Structure of the Rejected Child," *The Nervous Child*, 1944, 3:74-88.

²⁹ S. L. Pressey, J. E. Janney, and R. G. Kuhlen, *Life, A Psychological Survey*, New York: Harper & Brothers, 1939, p. 283.

satisfactory to the parent, blows of one kind or another that come before he is old enough to bear them, Wisdom will never become strong enough to face a readjustment. Result: weakness and lack of wholesome adaptive responses.³⁰

DOMINATION OF THE CHILD³¹

Domineering behavior on the part of parents has also been advanced as a cause of personality maladjustment in the child. If the parent uses his position judiciously he has little to fear so far as the child's personality adjustment is concerned. Dominant parents run the risk of creating fear and hostility in their offspring. Children possess ideas, emotions, and needs which are peculiarly their own and which must be taken into account if they are to develop adequately. Too rigidly enforced discipline evidently lays the foundation for later hostility and, in some instances, delinquency.³² Continual insistence on the so-called parental right to require implicit obedience may cause the child to be rebellious and resentful.

SUBMISSION TO THE CHILD

A submissive parent is one who capitulates to the child's demands and requests. Such a parent may bring about the same degree of personality maladjustment in the child as the domineering parent. Some students consider ascendance-submission to be a single trait (on a continuum), common to all individuals in varying degrees. In certain persons the dominating or ascending tendency is uppermost. In other individuals, the submissive or yielding tendency prevails. A parent who tends to be submissive "spoils" his children by capitulating to their demands at the expense of his own control and the child's personality development.³³

³⁰ F. A. Magoun, *Balanced Personality*, New York: Harper & Brothers, 1943, p. 109.

³¹ Mueller examined twenty-five dominant fathers and their relationship to their respective twenty-six sons. He established the fact that dominance on the part of the father was the result either of a neurotic compensatory function, of the desire of the parent to succeed vicariously, or of the fact that the parent himself had been reared in an authoritarian home or background. As far as the sons were concerned, their fathers' dominant behavior affected them in different ways. Fifteen accepted such domination passively, six were defiant and rebellious, and the five remaining resisted it passively (D. D. Mueller, "Paternal Domination: Its Influence on Child Guidance Results," *Smith College Studies in Social Work*, 1945, 15:184-215).

³² Richard L. Jenkins and Sylvia Glickman, "Patterns of Personality Organization Among Delinquents," *The Nervous Child*, 1947, 6:329-339.

³³ M. J. Fitz-Simons, *Some Parent-Child Relationships as Shown in Clinical Case Studies*, Teachers College Contributions to Education, No. 643, New York: Columbia University Press, 1935.

Severe illness in the child may lead to such overindulgence. A sick child is usually the recipient of the sympathy of his family and friends, is made as comfortable and secure as possible, and is relieved of all responsibilities. Parents of crippled or otherwise defective children often suffer from latent guilt feelings which lead them to be overzealously attentive to the child.

Many a child rules his parents by manifesting temper tantrums with which they are unable to cope. Other children get what they want by voicing threats of self-injury or even of suicide. The fear that such a threat may be carried out causes some parents to yield to the child's demands.

OVERPROTECTION OF THE CHILD

One of the defects in American homes is overprotection of the child; "momism" has become part of our colloquial language. Whereas the rejected child is thrown upon his own resources, the overprotected child is not permitted to develop in this respect. Such a child is protected from the normal conflicts of everyday living and as a result may develop what is called a withdrawn personality. In many cases the mother lavishes such care and affection on her child that he will be unprepared to face the usual problems of living. Harsh and Schrickel write that the overprotected child "is unprepared for frustrating demands of teachers or for competition with playmates. . . . During the school years social insecurity is compensated by delusions of superiority, but maladjustment is apt to become acute when the time comes for marriage or an independent career."³⁴

Excessive parental ambition in some instances is exhibited by those who themselves have achieved success and insist that their children have like careers, as well as by those who seek to satisfy their own frustrated ambitions through their children. Either situation is likely to produce strong emotional tension and frequently leaves the child feeling insecure and inferior.³⁵

PREFERENCE FOR A CHILD OF THE OTHER SEX

Because so many parents desire a male child as the first-born, the psychological adjustment of girls is frequently damaged. The realiza-

³⁴ C. M. Harsh and H. G. Schrickel, *Personality: Development and Assessment*, New York: The Ronald Press Company, 1950, p. 118. See also David M. Levy, *Maternal Overprotection*, New York: Columbia University Press, 1943.

³⁵ J. W. MacFarlane, "Inter-personal Relationships Within the Family," *Marriage and Family Living*, 1941, 3:25-31.

tion that the only chance for parental acceptance lies in a change in sex may lead to feelings of hopelessness and inadequacy.

PARENTAL JEALOUSY OF THE CHILD

In instances where one parent does not love the other parent, but instead identifies himself (or herself) with the child, there arises jealousy of the child on the part of the neglected parent. The father, for example, may be jealous of a child because the latter receives the attention which formerly was his. The father may then become indifferent to the child or may treat him with a severity which results in strained and resentful relations. A child who encounters such experiences usually dislikes his father intensely and may endeavor to compensate by seeking a maximum of security and affection from the mother.

A child recognizes such subtle conflicts early in life and may believe he is the cause of the difficulty. If so, he is likely to feel guilty and insecure. Some children have expressed the desire that they be adopted into other homes and thereby presumably bring their parents closer together. Other children have developed the fantasy that their present parents are not their own and that they have real parents elsewhere who want them and would welcome them.

THE DYNAMICS OF PARENT-CHILD RELATIONSHIPS

Many parents unwittingly deal with their children in ways designed to satisfy their own emotional needs and therefore fail to rear the children on the basis of the latter's best interests. A number of investigations have shown that an unhappy childhood tends to lead to later mismanagement of children. Mothers who themselves experienced rejection in childhood often reject their own children.³⁶ Children of overbearing parents, although usually docile, nonaggressive, and conforming in childhood, as parents themselves tend to become dominant, strict, and authoritative.

In summarizing the significance of the early childhood period, Symonds concluded:

Probably the first and most important factor making for a good parent is that the individual should have had a secure childhood

³⁶ M. Field, "Maternal Attitudes Found in Twenty-five Cases of Children with Primary Behavior Disorders," *American Journal of Orthopsychiatry*, 1940, 10:293-312. See also Percival M. Symonds, *The Psychology of Parent-Child Relationships*, New York: Appleton-Century-Crofts, Inc., 1939, pp. 98-103.

and have grown up to be an emotionally secure person. With a stable and loving father and mother a boy or girl grows up to take on stable characteristics, and when the time comes he or she will take on the responsibilities of parenthood . . . one can look to good parents and a happy childhood as the prime ingredient in the making of a good parent in the next generation.³⁷

TABLE 3. DIFFERENCE BETWEEN THE FREQUENCY WITH WHICH ITEMS IN MOTHER'S BACKGROUND WERE CHECKED FOR MOTHERS OF ACCEPTED AND REJECTED CHILDREN ^a

Differences in Favor of Accepted Group	Children Accepted	Differences in Favor of Rejected Group	Children Rejected
8	Home atmosphere friendly and cheerful	7	Educational opportunities limited
6	Father intelligent	5	Excessive punishment or criticism
5	Home located in good residential district		Fear used as a method of control by parents
	Mother well educated	4	Meager home environment
	Parents compatible		Mother irritable
4	Consistent discipline	3	Backward in school
	Early sex instruction and favorable attitudes toward sex		Bad companions
	Father emotionally stable		Disliked work as a child (disliked helping in home)
	Father kind		Erratic enforcement of discipline
	Good companions during childhood		Father austere
	Good relations with brother and sister		Inconsistent training
	Home orderly and tidy		"Nagging" parents
	Nutrition good as a child		Overprotected
	Parents very moral		
	Successful in school		

^a From Percival M. Symonds, *The Psychology of Parent-Child Relationships*, New York: Appleton-Century-Crofts, Inc., 1939, p. 101.

INTERSIBLING RELATIONSHIPS AND PERSONALITY

The child's position in his family is believed to influence his psychological adjustment. No two children share exactly the same environ-

³⁷ Percival M. Symonds, *The Dynamics of Parent-Child Relationships*, New York: Teachers College, Columbia University, 1949, pp. 128-129.

ment. What one child means to another child in the same family and how their relationship affects them emotionally is of importance to both the children and their parents. Stott writes:

Every child in the family occupies a unique position and assumes a unique role in family interaction . . . slight original differences in temperament or motivation soon become important differences, as roles are assumed and practiced in the daily contacts of family and social life. Because of these differences, the same general family situation might constitute very different *effective* environments to different children in the family.³⁸

The order of birth—whether the child is the oldest, the youngest, or the only boy or girl—and his age are factors of significance for personality development. Baldwin, for example, found that parents of nine-year-old children on the whole tend to be colder, less intellectually stimulating, less indulgent, and more strict than parents of three-year-olds.³⁹ This investigator suggested that the differences between these parents can be explained, in part at least, by the general development of personal independence during childhood, as well as by the influence of the cultural patterns for the rearing of children of different age groups.

One investigator, Montagu, believes that an important problem in intersibling relationships has been overlooked.⁴⁰ He notes that the character of the relations between brothers and sisters is different from that which obtains between siblings of the same sex. He cites the case of two brothers, Basil, the older, and George, the younger. George was born when Basil was three years of age. Until George was born Basil had been the center of attraction. The coming of George changed this relationship and subsequently affected Basil's whole personality. Because of his jealousy Basil rejected all of George's advances of friendship. George, in order to protect himself, modified his behavior and began to act like Basil. Had a girl been born instead of a boy Montagu believes that Basil's reactions would have been much more restrained.

In a study of sixteen pairs of siblings and one pair of twins Peller

³⁸ L. H. Stott, "Parent-Adolescent Adjustment, Its Meaning and Significance," *Character and Personality*, 1941-42, 10:140-150.

³⁹ A. L. Baldwin, "Differences in Parent Behavior Toward Three- and Nine-Year-Old Children," *Journal of Personality*, 1947-48, 16:143-165.

⁴⁰ M. F. Ashley Montagu, "Sex Order of Birth and Personality," *American Journal of Orthopsychiatry*, 1948, 18:351-353.

found that "the older child demonstrates an amazing degree of protectiveness and concern for the younger child, who in turn is very submissive and compliant."⁴¹ So intense was this protective feeling (identification) that the older sibling would fight more fiercely for the younger child than he would for himself.

THE ONLY CHILD

The "only child" seems to be more vulnerable to personality disorders than children with siblings. This outcome appears to be even more likely when the parents are beyond the usual child-rearing age or in situations where one parent centers his (or her) attention upon the child rather than upon the mate. In a family which includes several children the parents' interest is generally shared. The child who has no brothers or sisters is deprived of the sense of sharing which it is believed tends to make for a socially-adjusted personality.

Being an only child may make the boy or girl all-important to the parents—a situation which often results in psychological damage to the child. In a competitive world the overprotected child is likely to encounter considerable frustration. Excessive self-centeredness is not adequate protection for coping with the give-and-take of society. The only child who finds himself in such situations frequently feels defeated and may develop feelings of resentment or a tendency toward aloofness.

However, "only children" who are intelligently reared by parents who understand the problems involved are apparently no more vulnerable to personality disorders than non-only children. Some researches have disclosed no significant differences between the personality patterns of only and non-only children. Wattenberg, after analyzing many of the contemporary studies of only children, particularly of data from the Crime Prevention Bureau of the Detroit Police department on the relationship of delinquency to being an only child, concluded that, "The general 'category' of 'only' child is only good for psychological purposes. Differences in local customs, national or racial mores, and various other social and economic factors were largely uncontrolled in the studies reported. Such factors apparently can so change the meaning of being an only child or of

⁴¹ L. E. Peller, "Character Development in Nursery School," *Mental Hygiene*, 1948, 32:177-202.

having siblings that contrasting results are obtained.”⁴² Wattenberg found that among the thousands of cases on the docket of the Detroit Police Department, only children were no more delinquent than children with siblings.

Stott concluded that such confusion as exists concerning the effects of “onliness” upon personality development has resulted from failure to recognize that “onliness may not be properly regarded as a factor constant in its effects in all types of home setting and in all cultures, or that its significance may change with the march of general social change.”⁴³ In a study of 150 farm, small-town, and city children matched as to age, sex, and socioeconomic level, Stott found that in the case of such qualities as resourcefulness in group situations, personal responsibility in social relationships, and honesty in classroom situations the differences between non-only and only children were negligible. However, among the city children the “only” group was reliably superior (statistically) in personality adjustment, independence in personal matters, and personal responsibility.

It would seem that understanding parents can avert personality disorders in only children by providing them with neighborhood playmates, sending them to nursery school, and teaching them not only to share things with their parents but to respect the rights and property of everyone. These measures usually counteract tendencies toward egocentrism, domination, and an excessive desire for attention.

THE OLDEST CHILD

The oldest child for a time is an only child and therefore subject to the handicaps, if any, of occupying that position in the family. However, the coming of other children tends to decrease the likelihood that the oldest child will become maladjusted. Nevertheless, studies have shown that the oldest child tends to manifest jealousy to a greater extent than do others.

The oldest child in some instances is overtaxed with demands and responsibilities. Because he is the oldest in the family he is frequently expected to perform many duties connected with the care of younger children. Since he may gain maturity through the assumption of this

⁴² W. W. Wattenberg, “Delinquency and Only Children: Study of a Category,” *Journal of Abnormal and Social Psychology*, 1949, 44:356-366.

⁴³ Leland H. Stott, “General Home Setting as a Factor in the Study of the Only versus the Non-only Child,” *Character and Personality*, 1939, 8:156-162.

responsibility, and be rewarded by the affection shown by his siblings, this duty may turn out to be an advantage. The oldest child is, however, more likely to manifest personality disturbances as an adult. This outcome may be caused by his being the only child for a time or by his being the "experimental" child. A number of researches have shown a positive relationship between being a first-born and manifesting one of the major mental disorders. Manic-depressive psychosis and schizophrenia have been found to be greater among first-born than among other children.⁴⁴

THE YOUNGEST CHILD

The youngest child is vulnerable to a variety of personality maladjustments. He is often dominated by siblings who have real or imaginary authority over him. When subjected to the pressure of constant demands from older siblings he may become resentful and antagonistic.⁴⁵ In some instances the youngest child is "spoiled" and encouraged to retain infantile methods of adjustment. Such a child is likely to depend upon others for the satisfaction of his needs and desires. He may come to believe that whenever he is in difficulty someone will come to his assistance and assume responsibilities which he is unable or unwilling to accept. Even as adults such individuals hesitate to make decisions or to break away from the protection of their parents. Fear of failure in situations in which they are dependent upon their own resources fosters feelings of inadequacy and strengthens any existing attachment to a parent. Being "babied" gives such children the feeling that they can have virtually anything they desire.

Many youngest children nevertheless are well-adjusted and the possessors of desirable social and other qualities. Parents can encourage the development of adequate personality adjustment by according the "baby" of the family opportunities for becoming self-reliant and maintaining a feeling of personal autonomy.

THE INTERMEDIATE CHILD

The intermediate child may, by virtue of receiving neither the attention accorded the oldest nor the recognition given the youngest child,

⁴⁴ H. H. Berman, "Order of Birth in Manic-Depressive Reactions," *Psychiatric Quarterly*, 1933, 7:430-435.

⁴⁵ M. Parsley, "The Delinquent Girl in Chicago: The Influence of Ordinal Position and Size of Family," *Smith College Studies in Social Work*, 1933, 3:274-283.

be permitted to fall into the background of parental notice and affection. Being an intermediate child apparently invites neglect, thus leading to feelings of inadequacy. These obstacles can, however, be overcome by understanding parents who sense the dangers involved. It is the treatment a child receives and not his ordinal position in the family as such which determines his pattern of development.

SIBLING RIVALRY AND PERSONALITY ADJUSTMENT

A child becomes jealous when he believes that his security with a loved one is being threatened. When a sibling becomes jealous it probably is because a newborn baby has deprived him of highly prized privileges and parental attention, because unfavorable comparisons have been made between him and his brothers or sisters, because illness of a sibling has caused the loss of much desired care and affection, or because a parent, teacher, or relative has shown recognizable favoritism to some other child.

A study of the behavior of seventy children who had recently been displaced to some extent by the arrival of a new addition to the family showed frequent tendencies on the part of these children to ignore the infant, to deny any relationship to it, or to make overt attacks upon it.⁴⁶ In some cases the coming of the new sibling brought about marked changes in the emotional adjustment of the supplanted child. The changes noted included increased shyness and timidity, a tendency toward daydreaming, and a greater incidence of negativistic behavior. The investigator interpreted these symptoms of jealousy as having been brought about by loss of parental preferment.

Siblings are intensely competitive in many, if not most, instances. Even very young siblings virtually are forced to compete with one another much of the time. Davis and Havighurst write:

Whether a child is a first child, who has been replaced by a new baby, or whether he finds older and therefore more privileged brothers on the scene when he arrives, he certainly will have to come to grips with jealousy and rivalry. To make the situation worse, his parents unconsciously will train him in a contradictory fashion concerning this rivalry. For they will urge him both to *compete* with his brothers and sisters in some ways, and *not* to compete with them in other ways. This rivalry between the children, themselves, is often

⁴⁶ M. Sewell, "Some Causes of Jealousy in Young Children," *Smith College Studies in Social Work*, 1930, 1:6-22.

an insidious, full-scale, and bitter fight. In this battle, the victor gains *more* parental care and indulgence than his brothers or sisters. He hopes also to gain, and may actually gain, the one inestimable prize of life, that without which nothing can be wholly satisfying, as the child sees life—namely, the priceless gift of being the “most loved”—by the mother, if possible. If not, to be the best loved of the father is something, a kind of high consolation prize.⁴⁷

In some instances the child is not satisfied with being well-loved; he may strive to be the *best*-loved. Certain children may refuse to settle for anything less than being the *only* one of the siblings who appears to be loved. Such is the struggle for status in the family constellation in the first years of life. As Frank has stated:

The arrival of a younger child in the family also may create acute anxiety when the older child has not been prepared for it. The shock of waking up one morning to find the mother absent, to be told that she has gone to the hospital to have a baby, and then to have her return with an infant who engrosses her time and attention, is the unhappy fate of many children whose parents either ignore their need for preparation and reassurance or else deny it because they cannot face the questions about sex and procreation involved. So many children suffer unnecessarily from the arrival of a younger brother or sister when that arrival could be the occasion for happy expectations and enjoyment!⁴⁸

Children who are subjected to enforced generosity, loss of needed attention, or odious comparisons are in the nature of the case hampered in their personal and social development. Being frustrated in their efforts to secure affection and status, such children tend to remain emotionally immature. Some gain the much-desired attention by use of such psychological mechanisms as refusal to eat until coaxed and threatening to harm a disliked sibling; others become negativistic, destructive, self-centered, or addicted to nail-biting or enuresis. These and other symptoms of personality maladjustment arise when the child's need for parental affection is frustrated.

DYNAMICS OF SIBLING COOPERATION

Children who are adequately prepared for the coming of a younger brother or sister and whose parents continue to recognize and care

⁴⁷ W. Allison Davis and Robert J. Havighurst, *Father of the Man*, Boston: Houghton Mifflin Company, 1947, pp. 120-121.

⁴⁸ Lawrence K. Frank, “The Fundamental Needs of the Child,” *Mental Hygiene*, 1938, 22:353-379.

for them while nurturing the new arrival are in a favorable position to develop a cooperative attitude toward members of the family. A child learns cooperative ways of behaving most readily in concrete situations controlled in such a way as to insure the satisfaction of his basic needs and drives. If a child continues to receive recognition and affection while assisting in the care of an infant or helping a sibling protect himself from neighborhood bullies, he will find satisfaction in such cooperation.

PERSONALITY AND THE ADOLESCENT PERIOD

Adolescence is one of the most critical periods in the development of an individual. The adolescent is faced with difficulties incidental to growing up physically and with an increasing number of personal problems conducive to emotional tension. The effects of earlier frustrations and conflicts are often still in evidence. Feelings of inferiority and insecurity, for example, are present in many children as they enter the adolescent period. For these youths, adolescence is very disturbing. All adolescents are confronted with three major problems which they must solve satisfactorily if they are to become well-adjusted adults. These problems are: (1) achieving personal independence (emancipation from the home), (2) developing heterosexual social interests (taking an interest in and making an adjustment to individuals of the opposite sex), and (3) developing a sense of responsibility (assuming responsibility for and taking the consequences of one's acts).⁴⁹ Failure to deal successfully with these hurdles of the adolescent period results in a degree of personality maladjustment. In extreme cases such failure may lead to severe mental ill-health eventuating in a psychoneurosis or a psychosis.

EMANCIPATION FROM THE HOME

Many parents by their oversolicitude and overprotection stimulate the child to develop a strong parental attachment. Such a child is seldom permitted to do anything for himself and is likely to lack self-confidence and initiative. Most individuals begin the process of emancipation from home attachments in preadolescent years, but the dependent child makes little or no progress in this direction during

⁴⁹ N. B. Henry, *Adolescence*, 43rd Yearbook, NSSE, 1944, Part I; see also C. B. Zachry, *Emotion and Conduct in Adolescence*, New York: Appleton-Century-Crofts, Inc., 1940.

the adolescent period itself. Since this period calls for coping with an increasing number of obstacles, the dependent adolescent turns to his parents more and more. When confronted with social responsibilities outside the home, inability to assume them results in feelings of inferiority and a disposition to withdraw from such contacts.

In their striving for independence, many adolescents use clandestine methods in evading parental solicitude. Such evasion may lead to emotional maladjustment of varying degrees of severity. Some adolescents carry on forbidden activities without the consent of their parents and tell falsehoods to cover up their actions, a procedure which frequently results in feelings of guilt and unworthiness. In their desire to evade parental supervision and domination, some adolescents sever their home ties in favor of a career of delinquency.

INADEQUATE SEX EDUCATION

Incorrect or inadequate information concerning sex may be a factor in the development of conflicts during the adolescent period. The adolescent who does not possess adequate sex information may become emotionally disturbed upon hearing conflicting reports about sex activities. In homes where discussions relating to sex are strictly forbidden, the adolescent is made to feel that all matters concerning sex are shameful. Hearing sex matters discussed or even entertaining the thought of asking questions concerning them may result in feelings of guilt and shame.

The practice of masturbation is more common during adolescence than at any other period. Many an adolescent has been told that masturbation leads to general physical weakness, impotency, feeble-mindedness, or personality disorders of various kinds. Indulgence in it may, therefore, cause him to feel both guilty and anxious about his mental and physical health. Some youths become depressed, fearing that eventually they will become feeble-minded or insane. Actually, psychologists and others have found no evidence that masturbation as such has any appreciable effect upon an individual's physical health, mental condition, or sexual functioning.⁵⁰ Such damage as may be done is largely the result of fear or the feeling of guilt which may be involved.

⁵⁰ A. C. Kinsey, W. B. Pomeroy, and C. E. Martin, *Sexual Behavior in the Human Male*, Philadelphia: W. B. Saunders Company, 1948, Chap. 14.

SIGNIFICANCE OF SOCIAL SKILLS

The personal and social adjustment of the adolescent depends to a considerable extent upon how well he gets along with other youths. The acquisition of such social skills as will enable him to become acquainted with other young people and to influence them favorably is essential for the adolescent. Inability to participate successfully in competitive sports and games, to dance, to take part in conversations, and to enjoy musical events make the life of an adolescent difficult.⁵¹

HETEROSEXUAL SOCIAL ADJUSTMENT

A problem of considerable moment in the adolescent period is that of attaining satisfactory social relations with members of the opposite sex. If normal interest in the opposite sex is not achieved by the end of the adolescent period it is not likely ever to be attained.⁵² Inadequate or faulty sex information, segregation of the sexes in school and on the playground, negative views expressed by parents and other elders, unhappy marital relationships in the home, distressing initial experiences with members of the opposite sex, and marked parent-child attachments all interfere with heterosexual social development.

Segregating the sexes in the classroom and in recreational activities curbs the adolescent's development of confidence in his ability to mingle successfully with members of the opposite sex. Frustration of the adolescent's interest in persons of the opposite sex through segregation may bring about emotional tensions, which are reduced through masturbation and nail-biting. Parents and other adults who exaggerate the effects of venereal disease and the possibilities of pregnancy deter the adolescent's interest in activities involving courtship. Seeing unhappily married parents and being subjected to their emotional episodes may also bring about an aversion for members of the other sex. His parents may make life so pleasant and comfortable at home that the youth makes no attempt to develop social interests outside of the family circle. Parents may also block the adolescent's interest in members of the opposite sex by placing too rigid restrictions on his social and recreational activities.

⁵¹ Louis P. Thorpe, *Personality and Life*, New York: Longmans, Green and Co., Inc., 1941, Chaps. 6, 7.

⁵² Kimball Young, *Personality and Problems of Adjustment*, New York: Appleton-Century-Crofts, Inc., 1952, p. 403.

A strong parental attachment prevents the adolescent from making a satisfactory heterosexual social adjustment. Excessive dependence upon parents makes it difficult for the boy or girl to entertain the thought of ever leaving them. The dependent youth may make no attempt to develop an interest in anyone else. When he does become interested in members of the opposite sex, he is likely to look for qualities similar to those possessed by a parent. In the same way a parent who develops a strong attachment for a child may make it difficult for him to establish heterosexual social relationships in adolescence.

Curbing the development of adequate heterosexual social relationships encourages feelings of isolation and fosters indulgence in homosexual activities which are, however, usually of a temporary nature. These practices are designed indirectly to compensate for the feelings of inadequacy experienced by socially unaccepted adolescents. They may, however, lead to a sense of guilt and the further curtailment of social participation.

SCHOOL ACHIEVEMENT AND ADJUSTMENT

Some youths maintain their sense of personal worth primarily through success in school work. Since such success represents fulfillment of a strong drive for achievement, failure to make satisfactory progress threatens these youths' self-esteem and encourages the development of withdrawn or aggressive behavior. Constant threats to the student's personal integrity also keep him in a state of emotional tension which makes further academic success difficult to attain.

SEVERE DISCIPLINE AND PUNISHMENT

Youths are extremely sensitive to the way they are treated. Any restriction of their activities or any punishment is regarded as a threat to their autonomy and feeling of self-importance. This is especially true of punishment which the adolescent considers to be unjust. Youths do not resent disciplinary action based upon violations of desirable behavior or upon disregard for the rights of others. They do, however, object to discipline which is inconsistent or severe and which is exercised by others merely because they have authority. An adolescent who continually is disciplined unfairly is almost certain to be characterized by considerable emotional tension. Such tension

may be reduced by recourse to nail-biting, enuresis, masturbation, or outbursts of temper.

Youths who continually are punished manifest varying degrees of personality maladjustment. Fear, both of punishment and of frustrating situations in general, is a common result of severe discipline. The mistreated adolescent may develop a degree of hatred for his oppressors which results in disobedience, defiance, negativism, cruelty, and other hostile tendencies.

SUMMARY

The home provides the child with the experiences which to a considerable extent determine the course of his personality development. If his parents accept him in spite of any physical defects, deficiencies in intelligence, or social immaturities he may display, his personality will reflect such a situation. The home aids the child in developing normally and surrounds him with such opportunities and challenges as its particular society affords. If the child is made to feel secure he is more likely than otherwise to develop the type of personality which the members of his cultural group will accept. Certain types of homes obviously would lead to quite the opposite type of outcome. Again personality is culture in action.

Conditions in the home apparently are the avenue to the development of both individual personality pattern and social structure. Thus it can be said that the status of any cultural group depends to a considerable extent upon the type of experiences parents provide for their children. Personalities do not, as a rule, deviate from the psychological and cultural conditions under which they developed.

A number of studies of the effects of early training on personality development have made it evident that the home plays a major role in the formation of both the individual and of society as a whole. Each activity of the human individual leaves in its wake aftereffects which constitute determinants of personality structure.

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Education as a Determinant of Personality Formation

THE FIRST gathering of men and women into a society brought with it the germ of every educational system which has followed from that historic occasion. Education has been an adjunct of virtually every social organization.¹ Men, when united in living, have been forced to devise some methods by which the achievements that have contributed to their survival could be handed down from one generation to the next. A society which makes no provision for educating its children has in fact little chance of continuing its form of existence.

The first groups of human beings must have been too harassed by the pressures of their surroundings to design sustained educational programs, though informal patterns of education no doubt existed. It has remained for at least moderately advanced societies to invent a formal means for passing on to their offspring the factors upon which their existence depends.

EDUCATION IN A SOCIETY

Each succeeding society, like the first crude one, has faced the problem of passing on to its young people the knowledges and skills

¹ In this text, education will be considered as the directed application of selected phases of the cultural heritage. Education goes on at all times throughout life, but a distinction has been made to clarify the *conscious* direction of desired changes within the individual.

required to perpetuate the group in its desired form. The evolution of civilized societies has caused education to become more and more varied. Where society was primitive, its educational form was simple and often informal. A complex technological society has brought with it the need for formal educational institutions designed to disseminate the much more complicated cultural heritage.

Personality is acknowledged to be a social accretion. Whether the citizens of a society are developing along desired lines is the business of education which, in complex societies of today, is represented by the various school systems. The collective personality of a people is a reflection of that society. Wherever the state has functioned as the chief agency in directing men's lives it has evolved a method by which to carry out its purposes, thereby virtually creating a new generation functioning in accordance with its objectives. One need only think of the rigid methods of national education utilized by dictator countries to realize the effect of the schools in the formation of personality. But any form of associated life brings in its wake the problem of molding the personality of the individual.

DEPENDENCE OF THE YOUNG

While growth and development are seen at every stage, in no other period of life are these phenomena more marked than during infancy. The time and care involved in rearing an infant are distinguishing marks of our species. The offspring of the infrahuman in a relatively short time is able to fend for himself. The young of the other animals adapt to their world without the difficulties encountered by human beings.

The more time involved in development, the greater the need for formal learning. Biologists have come to the conclusion that much of animal behavior which once was considered instinctive has actually been learned. In human development, slowness of growth is compensated for by the development of "the higher mental processes." The human infant may develop at a less rapid pace than the young anthropoid, but this disadvantage is overcome in the course of time.

Children learn through identification with others and by a kind of groping with the artifacts of their society. The child is born into and develops in and through a particular group. As Hocking once wrote, "Children create the necessity, but also the exciting oppor-

tunity, for society's effort to make vocal the sense of its ideals, customs, laws, and (ominous word) to *inculcate* them."²

The child thus is modified by forces unknown to the lower animals. An impoverished environment can blunt the development of even the child with adequate inheritance.³ Society impresses its regulations and characteristics upon the infant from the day of birth. Language itself is a matter of social inheritance which the child acquires through education, and through language a society transmits its culture from one generation to the next. Even sign-language is an elementary form of communication.

Let us now turn to the learning process specifically rather than deal with the broad area of education as such. Education is defined as the process of rearing the young in formal and informal ways. Learning, while not isolated from education, is more specific in that it bears upon the individual's responses to external stimuli.⁴

LEARNING AND PERSONALITY

According to Snygg, learning cannot be dissociated from personality formation, since people change by learning. He writes, "If we accept a dynamic field as the model for our conceptual system, it is easy to avoid the separation between learning theory and personality theory."⁵ Snygg believes that a study of human learning as a dynamic process resulting from experiences is the most promising approach to the problem of personality development.

New knowledge of the past several decades seems to indicate the impact made by learning upon the development of personality. So long as the belief persisted that human character is innately determined, little attention was paid to the implications of learning. Experimentation, particularly with animals, in whose case this type of

² W. E. Hocking, *Human Nature and Its Remaking*, New Haven, Conn.: Yale University Press, 1928, p. 254.

³ N. E. Miller and John Dollard, *Social Learning and Imitation*, New Haven, Conn.: Yale University Press, 1941, p. 5.

⁴ Learning here is considered to be synonymous with adjustment, i.e., the means whereby changes are effected as the individual operates within his environment. Learning at this stage of psychological research is measured and considered in terms of modified behavior. While it is permissible to admit of "the higher mental process" and even to discuss such a concept, there is at the present time no other means of ascertaining the fact of learning except the changes in behavior observable in the individual.

⁵ Donald Snygg, "Learning: An Aspect of Personality Development," *Kentucky Symposium on Learning Theory, Personality Theory and Clinical Research*, New York: John Wiley & Sons, Inc., 1954, pp. 129-137.

research can most readily be conducted, has provided students of the subject with new insight into the dynamics of learning.

It may be contended that results from experimentation with animals are not valid for the study of human personality. Animal behavior is, however, analogous to human behavior in many instances and can therefore direct research on the human level. Both human and animal behavior are said to be the result of early experiences and living conditions. It is these conditions which involve learning and which are studied by investigators of animal behavior.

Hebb, for example, whose theoretical models have stimulated much of the research on animal behavior, holds that animals which have encountered a great many perceptual experiences (assumed as involving learning) early in life will react more successfully in later learning situations than those who have had no such experiences.⁶ He also believes that the earlier in life the animal is exposed to such perceptual experiences, the greater his effectiveness in responding to later problematic situations.

Bingham and Griffiths found that rats reared from their twenty-first to their fifty-first day in a small room rather than in a cage were superior in maze learning to animals that had been confined in small cages or "squeeze boxes."⁷ The freedom of the room-reared rats to wander about seemed to facilitate their finding their way through a maze.

Hebb also has shown that rats raised as pets in the home manifest marked superiority over rats reared in laboratory cages in certain learning situations.⁸ Other investigators as well have concluded that the difference in adaptive ability between home-reared and laboratory-reared animals is the result of the kind of training they received early in life.⁹

From the results of these and similar research studies it should be evident that patterns of behavior in animals not only are not fully

⁶ D. O. Hebb, *The Organization of Behavior*, New York: John Wiley & Sons, Inc., 1949.

⁷ W. E. Bingham and W. J. Griffiths, Jr., "The Effect of Different Environments During Infancy on Adult Behavior in the Rat," *Journal of Comparative and Physiological Psychology*, 1952, 45:307-312.

⁸ D. O. Hebb, "The Effects of Early Experiences on Problem-Solving at Maturity," *American Psychologist*, 1947, 2:306-307.

⁹ F. A. Beach and J. Jaynes, "Effect of Early Experiences upon Behavior of Animals," *Psychological Bulletin*, 1953, 51:239-263. See also J. Jaynes, "Learning a Second Response to a Cue as a Function of the Magnitude in the First," *Journal of Comparative and Physiological Psychology*, 1950, 43:398-408.

determined by heredity but that they can be modified, i.e., improved. It perhaps can be said to follow from these findings that human beings also can improve in adaptive ability and thus acquire (learn) desirable personality characteristics.

It is through learning that basic needs and drives are satisfied with a minimum of effort, a fact which makes possible the maintenance of equilibrium and the avoidance of frustration. In short, if man does not learn to adapt, some psychological maladjustment eventually takes place. It is through learned habits (learning being defined here as the capacity to profit by experience so that adaptation is facilitated) that man is able to make satisfactory existence possible. Without these habits each new experience would be more or less painful, and a series of such experiences would bring about a state of disequilibrium in the individual. Certainly needs cause us to respond, and at first the responses are general and crude. The child reaching for nourishment, the boy trying to write, and the man driving a car for the first time all are alike in this respect. Their actions lack the coordination and spontaneity of the *learned* response. The first learning thus is trial-and-error and the movements are gross and undifferentiated. In the case of a learned response there is differentiation and tension-reduction in relation to the reaching of goals. It is through the avenue of formal schooling that society has endeavored to insure satisfactory learning on the part of its younger members to the end that they may become adults well adapted to perpetuate and possibly improve the cultural climate of the group.

THE AMERICAN SYSTEM OF EDUCATION

The American school has traditionally been conservative. The traditional concept of education as interpreted in this country was to form character through discipline and through the performance of difficult mental tasks, a practice which has persisted until recent times. For years the American school proceeded as though the child were an "empty vessel" to be filled with facts and admonitions. A turning point regarding this question came at approximately the end of the last century. In Burton's words:

In 1895 Dewey read a paper before the Herbart Society in which he pointed out the inadequacy of the Herbartian theory of interest in that it did not include the instincts and emotions of the child.

In 1899 there appeared the first edition of Dewey's now famous book, *School and Society*. . . . Here for the first time we find mention of the fact that learning may produce a technique, a power to overcome obstacles and to attack new situations, as well as supply knowledge.¹⁰

The late Professor Thorndike at about the same time introduced his widely heralded "bond theory," which assumes that learning is a process of forming connections between stimuli and responses. Thorndike provided much of the empirical substantiation for Dewey's concept of the nature of the child.

Thorndike's classic *law of effect* holds that, all things being equal, the immediate consequence of a learned connection between stimulus and response can work back upon that connection to strengthen it. However, a "satisfying state of affairs" must follow immediately upon the making of the connection and also belong to it. Thus learning must, according to this law, be geared to the child's active feelings. Because of Thorndike's law of effect, knowledge for its own sake lost the dominant role it had occupied in American education. But it was primarily Dewey's thinking which transformed the American schoolroom.

THE "PROGRESSIVE" SCHOOL

While not a theory in the strict sense of that term, Dewey's experimental philosophy was destined to pervade virtually every phase of educational thought, as well as to reveal the many implications of education for personality development. Dewey's theory of education was strengthened by the results of Thorndike's extensive researches on learning. But the views he expressed were a vigorous synthesis of his own making. Although he borrowed heavily from the past—his method is in large part a product of the scientific ferment of the nineteenth century—his thinking was such that he emerged with one of the most distinctive educational doctrines of the twentieth century.

In Dewey's view, life by its very nature produces continual problems for which the individual must find concrete solutions. Thus learning is problem-solving. To continue living is to continue facing problems, which become progressively more complex as the individual grows and develops. Since man is a social creature, both prob-

¹⁰ William H. Burton, "The Problem-Solving Technique," *Educational Method*, 1934-35, 14: Part II, 248-253.

lems and their solution are contained (and sought) within the fabric of society. For Dewey, conflict is the very essence of existence.

All social movements involve conflicts which are reflected intellectually in controversies. . . . It would not be a sign of health if such an important social interest as education were not also an area of struggles, practical and theoretical. . . . It is the business of an intelligent theory of education to ascertain the causes for the conflicts that exist and then, instead of taking one side or the other, to indicate a plan of operation proceeding from a level deeper and more inclusive than is represented by the practices and ideas of the contending parties.¹¹

The effect of a theory such as this upon personality formation would seem to be apparent. For the fundamental point in Dewey's theory is its insistence on concern with life's problem as they affect the child. He emphasized the necessity of connecting these problems with educational processes. Genuine learning, he thought, depended upon the bringing out of all the natural abilities and capacities of the child.

Dewey made at least two contributions to our understanding of personality formation: (1) he re-emphasized the importance of the individual in the classroom situation, and (2) he brought the effects of the environment upon learning into open discussion. He indicated the value of an integrated approach to learning through his insistence upon concern for life's problems.¹²

¹¹ John Dewey, *Experience and Education*, New York: The Macmillan Company, 1938, Preface, p. v.

¹² For those interested further in the personality implications of the child-centered school the Report of the Commission on the Relation of School and College by the Progressive Education Association is particularly illuminating. More popularly known as the *Eight Year Study*, it has been one of the most extensive experiments designed to determine whether the problem-centered school is superior to the subject-matter type with respect to both personality development and academic achievement. Begun in 1933 under the direction of Wilfred Aiken the experiment included 30 public and private schools which were asked to reorganize their programs according to progressive education specifications. In an effort further to expedite the purposes of the experiment, approximately 200 colleges agreed to accept the graduates of these schools simply upon the recommendations of the high-school principals and waive any entrance requirements. The 30 high schools cooperated by reorganizing their curricula in terms of problems and experimental procedures in order to ascertain whether students so educated could do as well or possibly better as college students than those educated in traditionally academic high schools (control schools). According to careful analysis and follow-up studies, the graduates of the experimental high schools featuring the "broad" approach earned the better grades in college, and, what perhaps is more important, manifested superior personality qualities socially. In fact, judging from this study it appears that rigorous academic training advocated by traditionalists is no more effective in insuring future success in college than any other type of education.

The idea of cooperative learning is another of Dewey's contributions to educational method. In short, in a situation where the individual learns by sharing his problems with his fellows, the intangible qualities of respect for another's dignity, of mutual understanding, and the realization that life's problems are common to all are expected to be made part of the learner's capital of knowledge. Democracy, no longer just an idea to be taught, is brought into being in the life of the learner. Learning cannot be separated in the Deweyan program from the people and the ideas and problems inherent in the culture.

IMPLICATIONS FOR PERSONALITY

Dewey's educational program is built upon the construction of principles derived from experience. Dewey has said that we cannot communicate directly with one another, that is, that we do not impart knowledge per se from old to young or from teacher to pupil. Learning is a sharing process, and it is by way of this sharing that the young become oriented to the cultural heritage. Their own efforts in coming to grips with the common problems of a society are the only effective means of learning. As the young learner sees the significance for *himself* of a given problem and how it affects both him and the rest of society, he begins to understand the principles involved.

Problem-solving, as Dewey conceived it, is a procedure in education which makes no distinction between learning and instruction, relating them both as a process dedicated to the development of the learner. Formal and informal education (Dewey made only a theoretical distinction here) are the avenues by way of which the culture of a society is transmitted from generation to generation through a sharing of the problems of that society.

In Dewey's system there is no arbitrary separation of learner and instructor—they operate together in considering the problems common to all. The emphasis is upon man's capacity for solving, through the use of reason and planning, the problems which face him. Actual-life problems for both the content and method of learning. According to Dewey, in such a process personality formation becomes a social product and should be considered as such. The individual is the focus of the learning process which in itself has no meaning apart

from the social fabric. Thus, insofar as the school can make it so, personality constitutes a social accretion.

The effects of Dewey's theory of education have been pronounced, although recent years have witnessed a trend back to traditionalism.¹³ Since the classroom can no longer be severed from the needs of pupils as members of society, education and personality formation bear a mutual relationship which should be exploited. To quote:

We know that learning takes place most quickly and effectively when (1) the matter to be learned is made meaningful to the child by being immediately related to things which he understands and in which he sees sense and meaning, and (2) when his feelings—of interest, enthusiasm, and hope for success—are involved. We have learned that much of our mental life is in the realm of feeling, not of disembodied intellect. We must, then, provide for happiness, for a feeling of belonging, of being an accepted, wanted member of the group, and we must secure for each child a feeling of progress and a hope for success. This cannot be done if we fail to take into consideration the differing capacities, and the wide divergencies of their cultural background.¹⁴

Thus we have a picture of the school as an institution aware of and devoted to the optimum personality development of the child. Perhaps it would make for further understanding if we analyze some of the specific interpersonal relationships involved in the school.

TEACHER-PUPIL RELATIONSHIPS IN THE CLASSROOM

The experiences encountered in childhood in great measure form the foundations of the personality which will be manifested by a given individual later in life. These experiences, when translated in terms of the classroom, are interpersonal relationships involving teacher and pupil as well as pupil and classmates. As Keliher states:

¹³ As Holmes writes, "If ever a philosophy has received a pragmatic test through education, it is Dewey's philosophy. No doubt New England transcendentalism affected American education; and to some extent the idealism of W. T. Harris did so. But Dewey's systematic thought developing the central strain in Peirce and James has come to be an educational gospel in America. . . . I doubt if any period or country can provide a more complete example of philosophy in action—not even Germany beneath the dominance of Hegel" (H. H. Holmes, "Whitehead's Views on Education," in P. A. Schilpp (Ed.), *The Philosophy of Alfred North Whitehead*, New York: Tudor Publishing Company, 1951, p. 624).

¹⁴ *Guidance in Elementary Schools: A Handbook for Counselors, Principals and Teachers*, School Publication No. 439, 1948, Los Angeles City Schools, p. 9.

Also, we know very well that children learn more from one another than they ever learn from teachers, and we are beginning to be more and more concerned about how to compose groups, how to put children together in living groups, so that out of that living group they learn this other dimension of democracy, this other dimension of growth, which can come only through living with your peers—living well with your peers—and learning through experience the problem of living in a group.¹⁵

Education owes it to Dewey that the teacher has become increasingly aware of the implications for personality formation in the group learning situation. In this situation the teacher is the prototype of the parent figure, not as a disciplinarian, but as a guide and friend to the group.

UNDERSTANDING THE PUPIL

With intelligent handling the teacher can stimulate confidence in the timid child, as well as provide a sense of security for the child who may not be enjoying acceptance in his home or community. The teacher must herself achieve psychological balance if she is to perform adequately the task of guiding young children to maturity. For as Murray writes, "happy teachers make for good mental health in children. They are able to focus their full intelligence and insight on the activities at hand; they can discover the children who need an extra dimension of love and care; they are secure enough to reach out for expert help."¹⁶ As the teacher goes about her various duties she has an excellent opportunity for checking signs of incipient personality disorder. She is in a position to discern early signs of maladjustment and to cooperate in taking appropriate remedial steps. It is she who must spend the necessary extra time to help a child effect a better adjustment, as well as adapt subject-matter requirements and class procedures in such a way that the child finds a secure place within the group. For unless the teacher enables the pupil to feel secure in the classroom he is likely to suffer academically as well as psychologically.

It was in an effort to verify this hypothesis that Mandler and Sarason conducted an investigation on the influence of anxiety on person

¹⁵ Alice V. Keliher, "The Professional Person—A Mental-Hygiene Resource," *Mental Hygiene*, 1950, 34:274-279.

¹⁶ C. E. Murray, "Mental Hygiene in the Day's Work," *Mental Hygiene*, 1950, 34:438-464.

formance in connection with typical intelligence test items.¹⁷ The subjects (all college sophomores or junior college students) were divided into high and low anxiety groups. The selection was made through the use of an anxiety questionnaire, and each group was separated into three subgroups, viz., success, failure, and neutral. All subjects were given six trials each on the Kohs Block Design #13 and the Digit Symbols subtest of the Wechsler-Bellevue Intelligence Test. Reports were then issued to all the subjects informing them either that they had done very well or very badly, or that they should proceed to the second part. In the second part of the study all of the students previously tested were given six trials each on the Kohs Block Design #16 and a comparable variation of the Digit Symbol Test. From the various scores secured the authors concluded that, "It appears that the optimal conditions for a high anxiety group are those in which no further reference is made to the testing situation, and that the optimal conditions for a low anxiety group are those in which the subjects are given no failure report."

THE INFLUENCE OF EMOTION

In a recent article Hoch wrote, "More and more it is being realized that emotion is as much of an organic force as other physiological manifestations, functioning of the organism . . . is inevitably tied to this organic emotional functioning."¹⁸ However, it has not been long since emotion, as a factor in the life of the child, virtually was ignored in the classroom. Frustration, anxiety, and tension were terms unrelated to traditional concepts of learning. The teacher proceeded as though the child divested himself of all emotionality when he entered the classroom.

Emotion is now taken into account by the alert teacher and recognized as a major force in the learning process. The informed teacher is aware that emotion is related to learning in that pupils are affected by the performances they make in relation to certain goals (level of aspiration). In a review of the effects of psychological tension upon performance Lazarus, Deese, and Osler write:

Emotional reactions usually accompany very powerful motivation. . . . The disruptive aspect of emotion, of which the autonomic

¹⁷ G. Mandler and S. S. Sarason, "A Study of Anxiety and Learning," *Journal of Abnormal and Social Psychology*, 1952, 47:166-173.

¹⁸ P. H. Hoch, "Psychosomatic Problems: Methodology, Research Material and Concepts," *Psychoanalytic Review*, 1952, 39:213-221.

components are perhaps the most characteristic, may produce mental blocks, tremors, severe anxiety—reactions that make the satisfactory completion of a given task difficult or impossible. . . . Clinicians have long been aware that the ability of people to retain lists of digits may be severely impaired by the presence of strong anxiety.¹⁹

As an example of the effects of emotion on performance, Billingslea and Bloom found that frustrated college students who were arbitrarily failed on tests showed a tendency to utilize a variety of defense mechanisms following such interference with their goal-directed performance.²⁰

As a result of these findings educators have been stimulated to ascertain what type of classroom conditions affect the child's educational development most favorably. One of these conditions is found in teacher-pupil relationships and some "educators have recognized that when a child feels at ease and secure in these relationships, his learning capacity is markedly improved in the entire educational area."²¹

Hutt studied the effects of failure upon a group of maladjusted children as compared with the reactions of a group of well-adjusted pupils.²² He employed two methods of administering the Stanford-Binet test of intelligence; first, an adaptive procedure in which a failed item was followed by an item in which success was generally expected; and second, a method which started and finished with items on which the experimenter expected failure. The adaptive method resulted in higher average I.Q. scores for the maladjusted group. However, no differences between the two testing methods was revealed with respect to the well-adjusted group. The adaptive method apparently provided the subjects with a greater feeling of security; for the maladjusted pupils, being badly in need of such support, did better than they otherwise would have done. The well-adjusted group showed themselves to be efficient by either method.

Postman and Bruner found that experimentally induced percep-

¹⁹ R. S. Lazarus, J. Deese, and S. F. Osler, "The Effects of Psychological Stress upon Performance," *Psychological Bulletin*, 1952, 49:293-317.

²⁰ F. Y. Billingslea and H. Bloom, "The Comparative Effect of Frustration and Success on Goal-Directed Behavior in the Classroom," *Journal of Abnormal and Social Psychology*, 1950, 45:510-515.

²¹ J. Hertzman, "Developing a Mental-Hygiene Curriculum in a Public-School System," *Mental Hygiene*, 1952, 36:569-588.

²² M. L. Hutt, "A Clinical Study of 'Consecutive' and 'Adaptive' Testing with the Revised Stanford-Binet," *Journal of Consulting Psychology*, 1947, 11:93-103.

tual frustration and severe criticism caused a group of subjects to fail in the recognition of three-word sentences.²³ In addition, the pressure of continued failure brought about reckless and even nonsensical answers in response to three-word sentences shown to the experimental group. The control group, which was shown the three-word sentences at slower speeds and without criticism, had little or no difficulty in recognizing them.

In another study, Combs and Taylor noted that psychological tension results in an increase in the time required to complete a given task, as well as in the number of errors made.²⁴ The investigators presented fifty college students with the task of translating sentences written in a simple code language. Mildly threatening sentences (e.g., "I always perform very badly on codes," "My family does not respect my judgment," etc.) which were interspersed among neutral sentences required more time than others for completion and involved more effort on the part of the subject.

If the teacher is aware of the emotional factors which are often involved in learning she is in a much more favorable position than otherwise to guide her pupils successfully. As Miller writes, "Conflicts can distract, delay, and fatigue the individual and force him to make maladaptive compromise responses. Clinical studies demonstrate that severe conflict is one of the crucial factors in functional disorders of personality."²⁵ Classroom problems must be so geared to the pupil's level of maturity that he is able to respond adequately. Undue competition and the demand to solve problems which are beyond his capacity bring tension in their wake and are likely to disturb the pupil's psychological adjustment.

One group of investigators noted that when the pace of certain tests was speeded up beyond their normal rate, most of the subjects sacrificed accuracy for speed.²⁶ On the whole, the scores, while varied, indicated that performance had been appreciably impaired. How-

²³ L. Postman and J. S. Bruner, "Perception Under Stress," *Psychological Review*, 1948, 55:314-323. See also Saul Rosenzweig, "An Outline of Frustration Theory," in J. McV. Hunt (Ed.), *Personality and the Behavior Disorders*, New York: The Ronald Press Company, 1944, Vol. I, pp. 379-388.

²⁴ A. W. Combs and C. Taylor, "The Effect of the Perception of Mild Degrees of Threat on Performance," *Journal of Abnormal and Social Psychology*, 1952, 47:420-424.

²⁵ N. E. Miller, "Experimental Studies of Conflict," in J. McV. Hunt (Ed.), *Personality and the Behavior Disorders*, New York: The Ronald Press Company, 1944, Vol. I, p. 431.

²⁶ Fred McKinney and others, "Experimental Frustration in a Group Test Situation," *Journal of Abnormal and Social Psychology*, 1951, 46:316-323.

ever, a small proportion of the subjects performed evenly, showing little or no increase in errors as the result of added speed.

THE DYNAMICS OF BEHAVIOR

The problem of the dynamics of behavior, traditionally called "interest," becomes one of primary importance in today's classroom. Where personality adjustment is emphasized the teacher is neither dictator nor autocrat; instead, she is confidante and guide. In a general way the curriculum of a classroom presided over by such a teacher is sufficiently flexible that it can be changed whenever such a move is considered advisable. The classroom experiences are mutually stimulating and healthful and keep both pupils and teacher from becoming stereotyped or apathetic. The teacher paces her materials and instruction in such a way that undue tensions do not dislocate her class. As Lindsley has reported, tensions resulting from unusually rapid pacing of curricular materials caused a group of subjects to attempt too many problems and thus to make an unusual number of errors.²⁷ Although great variability in scores was in evidence, the total score of each of the subjects remained approximately equal because of the increase in errors brought about by the speedup in taking the tests.

Classroom activities should keep pace with the interests of the child. To fail in this respect is to invite boredom and possible failure, which in turn mitigate against effective performance. According to a study by Lantz, failure adversely affects performance in school subjects involving reasoning or thinking.²⁸ Curiously enough, the experience of having failed did not affect performance on tasks involving visual or rote memory. Lantz's experiment revealed a significant lowering of Stanford-Binet intelligence test scores following the incidence of a failure.

The dynamics of motivation, at least from the standpoint of learning, are still imperfectly understood. One writer sees a motivating situation as "an arresting situation, one which grips the imaginations, the emotions, and the intellectual capacity to the degree that the individual solves the problem himself (or contributes to the solu-

²⁷ D. B. Lindsley, "A Study of Performance Under Speed Stress," OSRD, Publication No. 1838, Washington: U.S. Dept. of Commerce, 1946.

²⁸ Beatrice Lantz, "Some Dynamic Aspects of Success and Failure," *Psychological Monographs*, 1915, Vol. 59, No. 1.

tion) with some satisfaction to himself, his associates, and to the teacher."²⁹ Educators generally agree that in order to be effective, learning situations must be geared to dynamic problems. However, there is no specific technique for presenting problems in such a way that for all children in any class at any given time, they will have this arresting quality. Nevertheless, it seems evident that effective learning hardly is possible without adequate motivation.

ADEQUATE TEACHER-PUPIL RELATIONSHIP

In a classroom situation where the pupils and the teacher are enjoying satisfactory rapport, respect for one another, mutual understanding, and the realization that life's problems are common to all are made part of each child's capital of knowledge and attitude each day. Instruction begins at the point where the learner has already enjoyed some experience. The child, it must be remembered, lives in the here and now and is concerned principally with that which affects him immediately. Such interest can be utilized in promoting the pupil's education as he grows and develops. "The need that the child shall have in his own personal and vital experience a varied background of contact and acquaintance with realities, social and physical," Dewey wrote, "is necessary to prevent symbols from becoming a purely second-hand substitute for reality."³⁰

The teacher should be well informed concerning both the principles and conditions of motivation to socially desirable behavior. As Miller and Dollard state, "Human behavior is learned: precisely that behavior which is widely felt to characterize man as a rational being, or as a member of a particular nation or social class, is acquired rather than innate. To understand thoroughly any item of behavior—either in the social group or in the individual life—one must know the psychological principles involved in its learning and the social conditions under which this learning takes place."³¹

THE IDEAL CLASSROOM PROGRAM

In her various roles as instructor, guide, and confidante the teacher plays a significant part in maintaining the conditions necessary for

²⁹ Dorothy La Salle, *Guidance of Children Through Physical Education*, New York: A. S. Barnes & Co., Inc., 1946, p. 33.

³⁰ John Dewey, *The School and Society*, Chicago: University of Chicago Press, 1900, pp. 104-105.

³¹ N. E. Miller and John Dollard, *Social Learning and Imitation*, New Haven, Conn.: Yale University Press, 1941, p. 1.

the optimum personality development of the child. So influential is her role that an adequate sense of security on the part of the child is not possible without her studied help. Arsenian writes, "*The most certain provision that can be made for the security of young children faced with unstructured [unfamiliar] environments appears to be the presence of a familiar adult whose protective power is known.*"³²

Although it is not advocated that the teacher try to take over the functions of a psychologist or psychiatrist in the classroom, it is essential that she be aware of the attitudes toward both people and the world in general which accompany the pupil's academic progress. For the child's attitudes are dependent upon the degree to which his basic needs and drives are being met. Whether the teacher realizes it or not, the classroom at times becomes a group-therapy situation. During these periods the teacher can use his (or her) knowledge of child growth and development in helping pupils feel more secure. It is, of course, assumed that the teacher has at least a working knowledge of child psychology. Axline and Rogers even believe that a teacher so prepared can fulfill the duties of a therapist in the classroom. They write, "The answer would seem to be affirmative, providing the teacher's role is much the same in both situations—that of an accepting, permissive person who is willing to grant children a large measure of free expression and individual choice."³³ These writers cite the success experienced with a six-year-old rejected child who, though extremely fearful and asocial at first in the classroom, through appropriate therapy was brought to the status of a happy and sociable child.

Teachers are better able to foster desired development in their pupils when they themselves enjoy an adequate understanding of the interpersonal relationships involved in the classroom. As Risk puts it, "Pupil experience is the essentially important part of any class work. Teachers must recognize the fact that in life people do not run around with textbooks under their arms reciting about facts they find there. They deal with facts as they apply to life problems. The schools must give pupils training in such experiences."³⁴

³² J. M. Arsenian, "Young Children in Unstructured Situations," *Journal of Abnormal and Social Psychology*, 1943, 38:225-249.

³³ Virginia M. Axline and C. R. Rogers, "A Teacher-Therapist Deals with a Handicapped Child," *Journal of Abnormal and Social Psychology*, 1945, 40:119-142.

³⁴ T. M. Risk, *Principles and Practices of Teaching in Secondary Schools*, New York: American Book Company, 1947, p. 48.

Classroom experience is one of the chief factors in personality formation. It is by this route that the pupil comes to a *formal* recognition of much of the culture of his society. And it is this recognition which to a considerable extent gives direction to his social behavior. The child learns the ways of behaving considered desirable by his society when he is under the influence of a formal educational agency of that society. It is in this way that he becomes equipped to adjust to the sanctions of adult life, including the likelihood that he will not be frustrated by them. As Kardiner has written, "Sanctions are . . . most important if they begin to operate in the childhood of the individual and thus become incorporated into the personality structure as the individual's effective tools of adaptation."³⁵

SUGGESTED ASPECTS OF A CLASSROOM MENTAL-HYGIENE PROGRAM

The emphasis placed upon various phases of a mental-hygiene program by authorities differs somewhat, but in general the following statements are accepted as basic aims in the classroom situation in which the mental-health factor is included: (1) emphasis upon co-operative effort and the minimizing of dictatorial or autocratic teaching methods; (2) flexibility of programs which permits recognition of and allowance for individual needs; (3) coordination of classroom activities with home and community activities to the end that the child is functioning in an integrated environment; (4) development of opportunities for success and minimizing of failure through adequately planned tasks appropriate for the individual pupil; (5) a favorable physical environment in terms of modern hygienic practices; (6) encouragement of self-evaluating teaching methods in terms of emphasis on basic attitudes; (7) release of tension in a relaxed and accepting atmosphere, with positive opportunities for the more withdrawn child and social controls for the aggressive child; and (8) awareness of the relative significance of various types of symptomatic behavior on the part of pupils.³⁶

These principles are violated in classrooms where children are required to compete with one another for coveted school marks, preferred seating arrangements, honor rolls, and other privileges or

³⁵ A. Kardiner, *The Individual and His Society*, New York: Columbia University Press, 1949, p. 110.

³⁶ Louis P. Thorpe, *The Psychology of Mental Health*, New York: The Ronald Press Company, 1950, p. 526.

forms of status which can be secured by only a fortunate few, leaving the others to their fate of inferiority or failure. The effect of such practices on the slow learner or even on certain so-called average children who can never aspire to the honor roll is believed to be marked. The classes should include cooperative activities in which all children have the opportunity of succeeding in some respect and of making a unique contribution to the work of the group. To quote a mental hygienist, "The child must be taught to the maximum of his ability those habits and that knowledge necessary for social living, while at the same time every precaution must be taken to preserve his personal integrity and to assure continued growth of his personality."³⁷

THE CURRICULUM AND PERSONALITY FORMATION

How much influence school subjects and activities exert on the personality of a child depends upon a complex of factors as yet impossible to differentiate. The curriculum of the school contains both the culture of society and the means by which its influence is felt in interpersonal relationships. Fortunately, today there is a view of the curriculum which is concerned with both aspects. Blair says:

the effective curriculum is one which: (1) makes provision for varying maturity and experience levels of pupils, (2) gears learning activities to the needs and goals of pupils, (3) provides projects, problems and units of experience which possess meaning and structure for the pupil, and (4) carefully selects and appraises projected pupil activities in terms of their transfer values and life situations. The question might be raised as to whether a curriculum can do all four of these things at once. I believe the answer is—yes. The highly enriched and flexible curriculum will provide an almost limitless array of possible activities and learning activities within certain broad areas. It should then be possible to select for a given pupil only those activities which satisfy these four criteria.³⁸

In the discussion which follows, the school subjects which represent the basic core of most curriculums today are presented from the standpoint of their possible effect upon personality formation and adjustment.

³⁷ C. M. Louttit, "The School as a Mental Hygiene Factor," *Mental Hygiene*, 1947, 31:50-65.

³⁸ C. M. Blair, "How Learning Theory is Related to Curriculum Organization," *Journal of Educational Psychology*, 1948, 39:161-166.

LANGUAGE

The verbal means of communication, language, is fundamental in each child's life. The culture in which he is reared passes on to him its accumulated knowledge and beliefs. If the individual is denied access to these cultural values, he can certainly be expected to have difficulty adjusting to the groups for whom those cultural values are important. This may perhaps be seen in the extreme personality disorders where subjects manifest marked inability to organize and share thinking, as well as being handicapped through failures at communication through language. Even in the more ordinary, less extreme disorders, a sound knowledge of the language of one's culture is beneficial. Many persons have found themselves at a loss in social situations because of lack of verbal fluency or the ability to converse readily. One learns to communicate through language in many areas of life. But certainly formal education bears a particular responsibility for the development and refinement of these language skills.

SEMANTICS

The considered use of language is held by many writers to lead to a sense of freedom from tension such as that associated with worry and anxiety. In addition, these writers propose, a sound and flexible use of language can help bring about what may be referred to as "optimal tonicity" or efficient readiness for work. Semantics is the name for the branch of study that concerns itself with the usage and understanding of words and their meanings. Hayakawa³⁰ has developed a comprehensive outline of the principles of semantics as well as ways in which they might be employed in the classroom. Semanticists suggest that the teacher can be of most help to the adequate development of children if she presents the study of language, not merely as the task of memorization of specific words with specific meanings, but as fluid symbols or words with many different shades of meaning. Thus, pupils would see the *symbolic* importance of words, that is, the manner in which words stand for certain general areas of meaning, rather than having a single and specific meaning.

³⁰ S. I. Hayakawa, *Language in Action*, New York: Harcourt, Brace and Company, Inc., 1943.

In many of its aspects education is permeated with the implications of the semantics problem. Teachers who have effectively utilized the basic principles of semantics have demonstrated the value of adequate methods of instruction in such varied fields as foreign languages,⁴⁰ physics,⁴¹ the social studies,⁴² and the teaching of English itself. In the teaching of English, for example, semantics has proved of value in training in abstraction, literary appreciation, composition writing, vocabulary building, reading comprehension, and the like.⁴³

ORAL ENGLISH

The spoken word plays a primary part in the life of our society; as such it has important implications for the personality adjustment of the school child. Oral communication is one of the most essential tools in the all-around development of the child. The child who is uncommunicative does not benefit from the social values of his society. Speech permits the release of aggression in socially accepted ways; in fact it has made possible virtually all of the techniques used in contemporary methods of therapy in connection with personality disorders. It thus is small wonder that psychotherapy often is alluded to as "the talking cure."

Through the critical use of various forms of verbalizing, a teacher may stimulate an immature child to added maturity, contribute to the socialization of a withdrawn daydreamer, promote the development of the superego in an aggressive pupil, encourage the release of tension in an insecure boy or girl, or help foster creative productivity in the case of the talented child. Of the various speech arts spontaneous play appears to have the greatest possibilities for personality development.

The finished drama, which has become a significant feature of

⁴⁰ W. B. Dunn, "Application of Extensional Methods in the Teaching of Elementary Foreign Language," in *Papers . . . American Congress for General Semantics*, Chicago: Institute of General Semantics, 1943, pp. 500-503; S. H. Eoff and W. E. Bull, "Semantic Approach to the Teaching of Foreign Languages," *Modern Language Journal*, 1948, 32:3-13.

⁴¹ Frank L. Werwiebe, "Applying General Semantics in Physics Courses," in *Papers . . . American Congress for General Semantics*, Chicago: Institute of General Semantics, 1943, pp. 469-472.

⁴² L. H. Feigenbaum, "An Experiment in Semantics," *High Points*, 1947, 29:76-78.

⁴³ C. I. Glicksberg, "The Educational Implications of Semantics," *School Review*, 1941, 49:744-753; by the same author, "Methodology in Semantics as Applied to English," *School Review*, 1945, 53:545-553; David Kopel, "Semantics and the Teaching of Reading," *Educational Method*, 1942, 21:270-277.

school activity, is one means of developing facility in oral English. There is, however, another type of drama, the *creative play*, which is written and acted out by school children themselves. This type of play has a different significance psychologically from that of the finished drama. In the creative play there are a number of opportunities for identification with desired characters, for release from frustration, for the promotion of group morale, and for other forms of personal satisfaction. Creative projection and the reduction of tension through the free choice of roles are particularly valuable aspects of creative play. The unstructured nature of the creative play and its lack of formality (except for the general rules of plot formation) has made it an effective device in personality therapy with school children. In clinical circles creative play is employed under the rubric of *psychodrama*.⁴⁴

There is little distinction between psychodrama and the creative play with respect to their therapeutic value. Both are thoroughly flexible and the children concerned live and talk their plays as these develop. From such activities pupils come to comprehend the nature of later "role-taking" so necessary in modern society.⁴⁵ They also experience the realistic impact of circumstances and human relationships on the different parts portrayed in the play. It is by way of the original play that many problems involving home and interpersonal relationships can, at least to a degree, be solved. Such a method enables the insecure child to express himself and thereby become accepted and recognized by his peers. By the same token the aggressive child may find satisfying emotional release within the framework of appropriate controls in the school situation.

⁴⁴ Frances Durland, "The Child and Dramatics," *Elementary School Journal*, 1938, 38:759-766; Helen H. Jennings, "Sociodrama as Educative Process," in *Fostering Mental Health in Our Schools*, 1950 Yearbook, Association for Supervision and Curriculum Development. National Education Association, Washington, D. C.: The Association, 1950, Chap. 6.

⁴⁵ Role-taking has been defined as "living out . . . a social behavior organization, whether as play, as social imitation, or as one's real-life situation. In real-life situations, role-taking means earnestly behaving as, and therefore actually being, a particular social person in relation to other persons. It also includes overtly or covertly acting as, without being, a particular social person, and by so doing getting hold of the social attitudes and the perspectives of that other social person. . . . Acquiring role-taking functions is, for the child, simply a result of his learning in particular situations with their contexts what he can, may, or must do, and gaining skill in doing it through practice" (Norman Cameron, *The Psychology of Behavior Disorders*, Boston: Houghton Mifflin Co., 1947, pp. 90-91).

SOME RESULTS OF UTILIZING PLAYS

In one project involving the creative play carried on over a period of four years it was found that such a procedure is a superior method in richness of the analytical material yielded and in the psychological adjustments made by the pupils.⁴⁶ It appeared to furnish a method by which the teacher could effectively bring about more adequate personal and social adjustment on the part of her pupils.

One teacher has reported the results of an unusual creative play project with children involving the re-enacting of the drama of King Arthur's restoration of peace in old England.⁴⁷ The children concerned already had been judged to be backward in academic achievement. They ranged from eight to twelve years of age and from feeble-minded to superior status in intelligence. According to this teacher, the pupils became more punctual, minor ailments no longer were exaggerated, classroom behavior in general changed for the better, the children became more friendly and spontaneous with the teacher, and their general attitude had changed from one of failure and defeat to one of determination and courage. A group atmosphere in which cheating largely was abandoned and in which discipline no longer was a major problem replaced the previous teacher-class conflict. The tools of written and spoken English appeared to be more easily acquired and an improvement in arithmetic was noted. The creative play was believed to be the major factor in this transformation.

COMPOSITION AND CREATIVE WRITING

Perhaps in no other area of verbalization are there more implications for personality adjustment than in personal expression in written language. The pupil who is encouraged to "put his thoughts down on paper" is enabled to feel a kinship, an empathy as it were, with the characters he is attempting to describe. Through vicarious role-taking, with implications similar to those of psychodrama, he "acts out" certain of his repressed desires. He thus has the opportunity of "identifying" himself with each of his characters and through such identification of experiencing with them their conflicts, their problems, and their possible solutions of these difficulties.

⁴⁶ Selma Horwitz, "Spontaneous Drama as a Technic in Group Therapy," *The Nervous Child*, 1945, 4:252-273.

⁴⁷ Elizabeth Taylor, *Experiments with a Backward Class*, London: Methuen & Co., Ltd., 1947.

There is an additional advantage to "writing out feelings" in that such a procedure is a socially acceptable way of expressing such feelings. A child may find release from tension through writing about hostility toward a sibling, resentment over parental domination, or a longing for some athletic equipment. Such a "writing-out" technique has become an integral part of diagnostic procedure in many child guidance clinics. Since it requires only a moderate amount of knowledge concerning projective methods and their interpretation, this method also can be employed by teachers.

Another effective means of assisting pupils both in recognizing and taking constructive steps toward the solution of their personal problems is that of writing their own autobiographies, or through the assigning of emotionally charged topics such as "If I could talk back to my father," and the like.⁴⁸ Creative writing by its very nature is a "feeling" operation. The pupil will be stimulated to greater efforts in creative writing if he is enabled to develop facility for transmitting his "feelings" into words.

READING AND APPRECIATION OF LITERATURE

The "love of good books" has been encouraged and advocated by writers, educators, and others. The psychologist, however, has seen in reading and the study of literature not only an aesthetic pursuit but, even more important perhaps, a therapeutic technique. His approach is far from the traditional one of judging books as "good" or "bad" in the moral sense. Books presenting themes or characters of a culturally desirable type were regarded as a means of inculcating morality centuries before the advent of contemporary psychology.

Children handicapped by reading difficulties in many instances manifest marked emotional instability, and specialists in remedial reading now endeavor to ascertain the basis for such a situation as a preliminary to planning programs of improvement in reading skills.⁴⁹ Children marked by equally serious problems, but which are not reflected in reading retardation, may be helped by "bibliotherapy," or carefully planned reading units which enable them to gain

⁴⁸ J. W. Klapman, "Use of Autobiography in Pedagogical Group Psychotherapy," *Diseases of the Nervous System*, 1947, 8:175-181.

⁴⁹ Elizabeth Goodman, Eileen O'Connor, and Estelle E. Shugerman, "Training in Remedial Reading and Psychotherapy," *American Journal of Psychotherapy*, 1947, 1:161-182.

at least some insight into the nature of their difficulties, as well as to effect identifications beneficial to personality adjustment.⁵⁰

A judge of the children's court in a certain large city has advocated the use of bibliotherapy for delinquent children as a means of favorably influencing their fantasies and emotional life.⁵¹ He has reported a lower incidence of hostile behavior, as well as improvement in emotional adjustment, among those assisted in this way. However, it is probable that a number of factors other than bibliotherapy may have been influential in the changes brought about.

One student of the subject has developed a questionnaire based on materials from literature which is designed to evaluate pupil attitudes concerning such dynamic factors as identification with others, problem-solving, defense mechanisms, motivation, etc.⁵² Such a device, when adequately adapted to the needs of pupils, is of value in diagnosing pupil maladjustment, as well as in providing a basis for therapy.

The enjoyment of reading for its own sake is a worthwhile objective. Such reading provides an escape, which may be constructive and possibly a basis for improved relationships with other individuals. The feeling of being well read, of being aware of the pattern of one's culture, and of being informed on current topics is believed to be "ego-implementing."

THE SOCIAL STUDIES

It is in connection with the social studies—history, geography, economics, civics, sociology, and psychology—that the pupil is most likely to become *consciously* aware of his role in the social scene. From early identification with his parents, the growing child proceeds toward maturity through recognition of his own selfhood and identification with his social group. He comes gradually to accept a mutual interrelationship with his group concretely as well as theoretically. Intellectual and emotional acceptance of this mutuality marks the arrival at responsible maturity, without which the adult continually would be in conflict with his environment. Students of the subject

⁵⁰ Charles Bradley and Elizabeth S. Bosquet, "Uses of Books for Psychotherapy with Children," *American Journal of Orthopsychiatry*, 1936, 6:23-31.

⁵¹ Jacob Panken, "Psychotherapeutic Value of Books in the Treatment and Prevention of Juvenile Delinquency," *American Journal of Psychotherapy*, 1947, 1:71-86.

⁵² George Lawton, "Mental Hygiene Through the Study of Literature," *English Journal*, High School Edition, 1939, 28:472-475.

to an increasing extent are stressing the "biosocial" approach to problems of personality formation.⁵³

The more dynamic functions of the social studies course are those of developing empathy with people, gaining insight into the implications of interpersonal relationships, and acquiring adequate social skills. As the pupil learns about the behavior tendencies of other persons he comes to understand himself better. Social behavior which contributes to personality adjustment also contributes to the well-being of the group. To quote, "Prejudices represent defensive antagonisms which spring from deep-seated and phantasy-ridden fears that alien minority, religious, racial and political groups threaten the personal well-being of the prejudiced individual."⁵⁴

THE SOCIAL STUDIES AND LAW AND ORDER

As Symonds has written:

In a sense, the whole system of laws and penal procedure is a projection on society of the individual's feeling of guilt . . . and need for punishment onto the offender for his own unconscious wishes which are similar to the offense. So in the larger realm of public affairs, society, being afraid of its own tendencies to aggression and disorder, buttresses itself against these tendencies by the institution of civil law, the basis of our present civilization.⁵⁵

This dynamic viewpoint of the role of social restraints is slowly taking the place of the former more static approach. That this approach has tremendous implications for personality formation, as well as for society in general, has frequently been overlooked. The social studies teacher has at his command endless examples, such as industrial developments, political movements, and social problems, of patterns of social and individual dynamics. If he can enable his pupils to understand these dynamics and, what is more essential, to relate themselves to them in active and participating terms through some device such as the creative drama, he will have tapped possi-

⁵³ See Norman Cameron, *The Psychology of Behavior Disorders*, Boston: Houghton Mifflin Company, 1947.

⁵⁴ Jules H. Masserman, *Principles of Dynamic Psychiatry*, Philadelphia: W. B. Saunders Company, 1946, p. 224.

⁵⁵ Percival M. Symonds, *The Dynamics of Human Adjustment*, New York: Appleton-Century-Crofts, Inc., 1946, p. 313. For a psychoanalytic approach to social institutions see Pryn's Hopkins, *The Psychology of Social Movements*, London: George Allen & Unwin, Ltd., 1938.

bilities for personality development apparently second to no other subject in the curriculum.

THE PROBLEM OF PREJUDICE

If the only contribution made by the social studies course was that of minimizing prejudice on the part of pupils, it would have more than proved its worth. The major causes of such prejudice have been suggested as being imitation (introjection), erroneous association of ideas, and displaced hostility.⁵⁶ The social studies teacher is in a strategic position to assist her pupils in finding a solution to the problem of prejudice, as well as gaining an understanding of the psychological defenses which produce it. The procedures for assisting pupils in this matter include unemotional acceptance of the fact of strong feeling; provisions for talking it out; writing about it; drawing or acting out hostilities in a permissive atmosphere; and the substitution of more desirable outlets for hostility in the form of socially acceptable attacks on poverty, crime, corruption, etc.

Because of his hostility toward people the frustrated or rejected individual utilizes the sanctions offered by society which make possible expressions of his feelings of aggression. However, it is only when these sanctions become incorporated into his personality structure that such a person permits his aggression to find release in anti-social action. Whatever the particular examples of human friction, the social studies teacher cannot fail to note the dynamic nature of the individual and social interrelationships manifested in his various contacts with pupils. His acceptance of them as a working basis for procedure in teaching in itself is a desirable approach so far as influencing personality formation is concerned.⁵⁷

SCIENCE AND MATHEMATICS

With the accelerated development of science in the nineteenth century and the implications of the present Atomic Age, the importance of science and mathematics in the curriculum has necessarily increased. Originally thought of as merely an intellectual exercise, the

⁵⁶ Dorothy W. Baruch, *The Glass House of Prejudice*, New York: William Morrow & Company, Inc., 1946, pp. 125-127. For an academic interpretation of prejudice see Eugene Hartley, *Problems in Prejudice*, New York: King's Crown Press, 1946.

⁵⁷ Bruno Bettelheim, "The Social Studies Teacher and the Emotional Needs of Adolescents," *School Review*, 1948, 56:585-592.

scientific method has come to occupy an important place in the culture of America.

There has been a significant shift in educational practice away from rote learning in science and mathematics in favor of conceptualizing processes. At an early age pupils are now taught to employ scientific methods of thinking—to weigh or evaluate evidence, to keep an “open mind,” to see relativity in situations and processes, to acquire research skills, to cooperate with others in the solution of common problems, etc. Mathematics and science taught in this way cease to be merely “tool subjects” and instead become vital factors in the child’s personality development and adjustment to society.⁵⁸

ART

Psychologists recognize that children’s drawings are significant indicators of their personality pattern. From the point of view of personality, art is significant because it offers a projective technique for diagnosing maladjustments, a means of emotional catharsis, and an opportunity for stimulating creative achievement.⁵⁹ Clinical studies are available indicating that drawings in some instances reveal⁶⁰ a state of anxiety, fear, hostility, insecurity, instability, or other such disturbance of personality.⁶¹

Art in its many facets is probably the most unstructured form of expression available to the child. “Free play” may contest this position, but if play takes the form of group activity, even though no formal rules or restrictions are involved, it is indirectly structured by the demands of others. When the child plays alone he is likely to engage in some form of creative art—building a castle from sand, arranging his blocks to build a house, covering sheets of paper with

⁵⁸ Charles H. Judd, *Education as Cultivation of the Higher Mental Processes*, New York: The Macmillan Company, 1936.

⁵⁹ Werner Wolf, *Personality of the Preschool Child*, New York: Grune & Stratton, Inc., 1946.

⁶⁰ Mable Freeman, “Drawing as a Psychotherapeutic Intermedium,” in *Proceedings and Addresses of the 60th Annual Session of the American Association on Mental Defectives*, 1936, pp. 182-187. See the Goodenough Draw-A-Man test for a standardized technique using drawing for I.Q. ratings (Florence L. Goodenough, *The Measurement of Intelligence by Drawings*, Yonkers, N. Y.: World Book Co., 1926).

⁶¹ Helga K. Eng, *Psychology of Children’s Drawings*, New York: Harcourt, Brace and Company, Inc., 1931. For a more advanced study of psychoanalytic interpretations, with adult drawings, see Helton Godwin Baynes, *Mythology of the Soul*, Baltimore: The Williams & Wilkins Company, 1940, and Margaret Naumburg, *Studies of “Free” Art Expression of Behavior Problem Children and Adolescents as a Means of Diagnosis and Therapy*, Nervous and Mental Disease Monographs, No. 71, 1947.

drawings or paintings, etc. The young child finds satisfaction in "creating" his own art forms, however barren of significance they may seem to the traditional art-conscious adult. Only later does the child bow to the necessity for conforming to line, color, perspective, and other artistic criteria.

Drawing, painting, and modeling are fruitful devices for establishing rapport with children, and studies have shown that such problems as retardation in speech and pronounced withdrawal from social contacts can to some extent be alleviated in the permissive situation possible in classroom art activities.⁶² The implications for personality adjustment here hardly need laboring.

MUSIC

The marked influence of music on emotional behavior has been noted by a number of experimenters. Many animals appear to react to music in some overt way. Squirrels have been said to respond to whistling, sheep will react to the sound of a flute, elephants endeavor to dance to pronounced rhythms, and "musical" dogs are not uncommon. In short, music has been noted as being calming, irritating, or stimulating to animals and frequently is used in connection with their training.⁶³

Therapy involving music in institutions for the mentally ill has been accepted in medical circles for decades.⁶⁴ Music has been seen to produce melancholy, move people to tears, excite man to martial deeds, or bring about a state of ecstasy. Thus the inclusion of music in any curriculum concerned with the personality development of children would seem to be justified. The use of experiences with music for developing rapport with young pupils probably has been used more frequently in the kindergarten-primary program than in the upper grades, but apparently it can be effective at all educational levels.

A number of studies have suggested the value of music in bringing

⁶² Thelma E. Weisleder, "Establishing Rapport Through Finger Painting," *Elementary School Journal*, 1947, 48:82-87.

⁶³ Charles M. Diserens, *The Influence of Music on Behavior*, Princeton, N. J.: Princeton University Press, 1926; Leonard B. Meyer, *Emotion and Meaning in Music*, Chicago: University of Chicago Press, 1956.

⁶⁴ W. Van de Wall, *Utilization of Music in Prisons and Mental Hospitals*, New York: National Bureau for the Advancement of Music, 1924.

about desirable attitudes in children.⁶⁵ Music therapy also has been the basis for experimentation in the rehabilitation of wounded veterans.⁶⁶ Performance on a musical instrument may serve to improve muscular coordination and lead to added poise and self-confidence. Other advantages of experiences with music are said to include the release of energy, keeping the individual occupied, easing tension, providing a sense of accomplishment, developing group consciousness and a feeling of belonging (through participation in band, orchestra, chorus, etc.), and the discovery of musical talent for vocational purposes.

PHYSICAL EDUCATION

The first gymnasium classes were as stereotyped and ritualistic as the multiplication tables. Children and youths thus rebelled against the very activities designed to provide a release from classroom inactivity and to aid in developing physical health and personality development.

Nevertheless, the potentialities for personality development inherent in physical education activities have been recognized. The play period itself makes possible relaxation and the release of tension; organized games provide an opportunity for developing cooperation and team play; and intramural sports encourage a wider socialization in terms of the community culture. In some instances an individual child's difficulties can be diagnosed and a solution suggested in the physical education period.⁶⁷

In the case of younger children applications of play therapy can be made in the supervised play period. The possible contributions to personality adjustment of this procedure are believed to be considerable. Play therapy, like psychodrama, calls for a situation in which the child may live his fantasies, and even release pent-up hostility without fear of experiencing guilt or rejection. Since it is "unstructured," this type of play has been found to be effective only with certain types of children and under carefully controlled condi-

⁶⁵ O. I. Jacobsen, "Use of Music in an Educational Program of Mental Hygiene," *Journal of Experimental Education*, 1940, 8:399-402; Marion Flagg, "Music an Agency Toward Total Growth," *Education*, 1949, 69:417-419.

⁶⁶ Harriet Rasooli-Sa' (Ed.), "Musical Therapy for Wounded Vets," *Educational Music Magazine*, 1948, 28:32-33.

⁶⁷ Dorothy La Salle, *Guidance of Children Through Physical Education*, New York: A. S. Barnes & Co., Inc., 1946.

tions. Physical education instructors with a modicum of training should be able to supervise such sessions except for children with serious personality disturbances.⁶⁸

VOCATIONAL ARTS

The new interest in vocational arts manifested in the 1940's was an aspect of the growing concern for personality development. Industry was coming to recognize that it pays in financial dividends to have properly placed, well-adjusted employees. Education is assuming some of the responsibility for pre-employment guidance. Skill in many instances can be learned on the job in from a few hours to a few weeks, but the problem of appropriate personality qualities is not so easily solved. The more adequately this factor is handled while the person is still sufficiently young and flexible to make adjustments, the less incidence of vocational misfits there will be.

The following personality factors have been advanced as appropriate objectives for a business course: the development of a sense of adequacy, stable reactions to emotional situations, fairness and tact in dealing with people, a balance of work and play, independence of action, an interest in the problems of associates, and the fostering of a tolerant point of view.⁶⁹

Vocational interest inventories and aptitude tests are commonly used and no doubt will become increasingly widespread as these measurement devices are refined. The role of the teacher in assisting young people in finding the vocation for which they are best suited in terms of both personality pattern and technical preparation is a crucial one.

SUMMARY

Education is commonly believed to be the second most important influence in the shaping of personality. The home is, patently, the primary agency in this respect. However, that the school is a social agency which reflects the values of the group which composes that

⁶⁸ Ernest Harms, "Play Diagnosis," *The Nervous Child*, 1948, 7:233-246; Lydia Jackson and Kathleen M. Todd, *Child Treatment and the Therapy of Play*, New York: The Ronald Press Company, 1950; Virginia M. Axline, *Play Therapy*, Boston: Houghton Mifflin Company, 1947.

⁶⁹ R. D. Millican, "Mental Health—A Must for Success in Merchandising," *Journal of Business Education*, 1943, 18:10-12.

society is widely recognized. As a result the school child early begins to assimilate the "norms" of his social order.

Education is more than the transmission of a storehouse of information. It enriches the child's personality with daily experiences which provide him with a wider understanding of his world. As useful knowledge accumulates, so does the child's appreciation of his cultural heritage. The school in a given culture tends to be geared to the practices and values of that culture. It also emphasizes the affective aspects of development as well as those of a more purely intellectual nature. It is the teacher who enables the developing child to discover the advantages which can be derived from an understanding of at least some of the natural phenomena of the universe.

Teacher-pupil relationships in the classroom and the type of curricular material presented both represent potent influences in the determination of individual points of view, mental health, and general personality pattern.

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PART FOUR

Approaches to the Study
of Personality

9

Psychoanalysis and Personality

DESPITE THE furor which it aroused, the psychoanalytic movement has provided psychology with a dynamic approach to the study of personality. Sigmund Freud's work was one of the first genuine attempts to ascertain the effect of past experiences, particularly infantile experiences, upon the formation of personality. According to the Freudian doctrine, personality is a psychical organization built up layer by layer, as it were, through the years. To discover the causes of a neurosis or psychosis it is necessary to penetrate the psychological layers which have appeared with development.

In this chapter we shall endeavor to present the salient features of a psychological system which has revolutionized therapeutic methods in treating emotionally disturbed individuals. The fact that it involves a therapeutic technique does not, however, limit the importance of psychoanalysis in personality research. The details we shall present here should be of help in understanding later approaches to the study of personality development.

ORIGIN OF PSYCHOANALYSIS

Psychoanalysis has its roots in the use of hypnosis for the treatment of nervous disorders. It was in the early 1880's that Dr. Josef Breuer, a physician, used hypnosis to cure a young girl of a syndrome of symptoms including functional paralysis. By accident he had found that the girl's symptoms disappeared when she was able to talk about the incidents which had disturbed her. It was then that he hypnotized her and urged her to talk about what was bothering her.

Freud had some success with this method in his own cases, but was disturbed by his inability to hypnotize certain patients as well as by the short duration of some of the cures effected. He thus began using on all his patients the method of helping them recall events that had occurred very early in life. This was free association—a technique basic to psychoanalysis. It involves encouraging the patient to recall material in the unconscious without evaluating or inhibiting anything that comes to mind. The analyst interprets this free association material in the light of the principles of psychoanalytic theory.

THE UNCONSCIOUS

Through his research into hypnotic behavior, hysteria, and the like, Freud became convinced that there exists an unconscious mental life which is even more important than consciousness in influencing behavior. The contents of this unconscious stronghold are actively kept from consciousness. It is only through some special technique, some form of therapy, that one can reach the materials which have been repressed because they are unacceptable to the conscious mind. Between the conscious and the unconscious is the area of mental life which Freud called the preconscious. The preconscious consists of material which can be brought to consciousness more or less readily.

The conscious, preconscious, and unconscious minds are three inseparable aspects of mental life linked together in a dynamic process. It is the task of the psychoanalyst to ascertain, through the avenue of the conscious, the forces at play in the unconscious. Since the content of the unconscious remains unknown even to the individual himself, the psychoanalyst must piece together, through the methods of free association and dream interpretation, data which will reveal the nature of the subject's personality disorder. This in effect is the unique method of psychoanalysis. Of necessity it is a method of inference. But if some of the causes of mental ill-health can be revealed through such inferences, psychoanalysis will have provided mankind with much valuable data regarding the dynamics of behavior.

Freud believed that there is present in the individual a complex of primitive and irrational desires and that this unconscious part of man's psychic life directs much of his behavior. He also thought of the unconscious as the storehouse of unpleasant and painful experiences which are sometimes converted into bodily symptoms and

which exert marked effects on personality. According to psychoanalysis, all of us are characterized by primitive impulses, but our parents and the culture have required us to develop standards of behavior which lead to the repression of these impulses, forcing them into the unconscious where they stay except as expressed in disguised form in dreams or bodily symptoms.

THE DYNAMICS OF PSYCHOANALYSIS

The three stages of mind—conscious, preconscious, and unconscious—are credible constructs. Certainly at this stage of knowledge few will deny the effects of past experiences upon the life of the individual. According to Freud, there is constant tension between the conscious and the unconscious. It is well known that the Puritanic heritage which is America's limits behavior. Some of the taboos of our society are not only rigorous but even contrary to what are regarded as natural impulses. The conscious self complies with these restrictions and literally forces "primitive" impulses underground; however, the unconscious, the more dynamic and personal but hidden aspect of our lives, constantly beats against these walls of repression.

The conscious self is the arbiter of our conduct, permitting modes of behavior that conform to the dictates of society. Whether through "conscience" or threats to the ego, primitive desires are repressed. The unconscious self is in conflict with the conscious self, which must, as a result of internalized standards and reality demands, conform to social conventions. It is largely through the *censor*—the guard placed upon the unconscious—that social behavior is maintained.

Freud would be notable in the history of psychology if he had done no more than demonstrate the dominant role of the emotions in determining all the choices of life. He did not believe that the intellect of either infant or adult is able to control the powerful forces of the libido. Man does not act in accordance with rational decisions; he constructs these decisions *after* he acts. In contrast to a traditional view that the most influential guide to conduct is universal reason, Freud believed he had located this guide in the unconscious mind of the individual.

Thus we have two opposed conceptions of behavior—one holding that conduct is subject to reason, the other that reason is relatively

powerless in the face of irrational forces. Our rationalist tradition, older than Socrates, holds that behavior is determined largely by reason, that the more logically and intelligently a man thinks, the more control he has over his actions. The Freudian view holds that conduct is a product of emotional forces which man cannot at all times control.

Freud, however, was aware of the importance of cognitive facets of behavior. In discussing the transition from the elemental *pleasure principle* to the *reality principle* whereby the individual seeks to maintain his balance he wrote:

Later on, the ego discovers that there is another way of insuring gratification of urges than adaptation to the outer world. This newly discovered method consists of changing conditions in the outer world in such a way as to bring about circumstances favorable for gratification. This activity of the ego constitutes its supreme achievement. Sufficient discernment to perceive when it is opportune to stifle passions and when it is opportune to either face or fight the realities of the outer world is, after all, the alpha and omega of practical wisdom.¹

In addition to distinguishing between the conscious, preconscious, and the unconscious, Freud suggested that psychological functions can be classified as belonging to the id, the ego, or the superego. The part of man's life housing the primitive cravings and instincts which constitute the heritage of the human race Freud called the *id*. The limitations which organized societies put upon man's behavior forbid the outright gratifications desired by the id. Being thus restricted, the id presents one facet of itself to the world—the *ego*, which acts in concert with the conventions demanded of the personality by society. The ego acts to avoid displeasure and to seek pleasure, but it is beset by constant forces from the external world, the pressure of the gratification-seeking id, and the dictates of customs, regulations, etc. The *superego* incorporates these customs and regulations and is the chief agent of repression. The superego sits as a regulative authority or judge over the primitive desires stored, but in potential rebellion, in the unconscious.

Many who have plumbed the "unconscious," have demonstrated the significance for personality adjustment of early childhood train-

¹ From Sigmund Freud, "Basic Conceptions of Psychoanalysis," in R. Waelder (Ed.), *The Living Thoughts of Freud*, New York: Longmans, Green & Co., Inc., 1941, pp. 59-60.

ing and experiences. The neurotic personality has been shown in great part to be due to repressions in early childhood. If nothing else, then, from psychoanalysis we can derive a sense of direction for the development of the normal as well as the abnormal personality.

SEX AND PERSONALITY DISORDER

Freud's work represents a distinct break with an outworn conservatism regarding the role of sex in personality disorders. However, like other such movements, psychoanalysis encountered considerable misunderstanding and even enmity. All too often Freud has been dismissed with some statement purporting to indicate his overconcern with the problem of sex. To say that sex, or the love life of the individual, is a fundamental feature of the Freudian system is obvious, but to stop at this point is a gross oversimplification of an ingenious concept regarding the formation of personality. It was Freud who broke out of the nineteenth-century jail that had concealed the part which sex experiences play in the etiology of the emotionally disturbed personality.²

We recognize the normal individual, i.e., the one who does not suffer from a neurosis, said Freud, as one who has enjoyed an adequate sex life. It is the disordered personality which manifests the effects of past conflicts and repressions. Psychoanalysis began as a therapeutic method designed to reveal the causes of neurotic or psychotic behavior through the sifting of the experiences of the past, particularly those associated with the individual's sex life. Out of Freud's clinical researches there emerged new hope for the neurotic individual.

According to Freud, man's sex life influences much of his behavior. Virtually all of our experiences are to be interpreted in terms of this fundamental feature of psychic and physical life. Thus the child who is repressed by a harsh mother and denied the love it craves is likely later to manifest behavior which society considers deviant. Freud's concept of sex included all phases of what is called the love life, from infancy to the grave. It is not a force or substance outside of

² Weiss and English, who acknowledge their debt to Freud (and his associates and students) in their work on personality development and psychopathology, write that "all illness is a problem of psyche and soma, hence *all medicine is psychosomatic medicine*. In fact when this is thoroughly understood there will no longer be a necessity for the term psychosomatic medicine; both parts of the term will be implicit in the word *medicine*" (E. Weiss and O. S. English, *Psychosomatic Medicine*, Philadelphia: W. B. Saunders Company, 1949, p. 57).

life, but a constituent of behavior itself. Thus sex not only legislates our activity, but colors it as well. The stronger the sex drive, the more intense the behavior and the greater the probability of deviant behavior being manifested. Freud seldom failed to emphasize the point that the individual who enjoys a normal sex life throughout the years will not become neurotic.

The postulation of an unconscious mind and the assumption that sex is a prime factor in activating behavior are only part of psychoanalytic theory. There is also the assumption that a frame of reference can be established to reach into the unconscious deep enough to reveal the traumatic experiences responsible for the neurotic symptoms manifested. Psychoanalysis rests on the assumption that through *catharsis*, or talking-out, the unconscious can secure expression and thus reduce the pressure of neurotic conflict. Accordingly, catharsis is a means by which the patient "rids himself," through speech, of the effect of experiences which have caused his repressions and subsequent neurosis.

DREAM WORK AND ANALYSIS

According to psychoanalytic doctrine, dreams are one means by which repressed desires are released. It is during sleep that the vigilance of the censor is relaxed sufficiently to permit expression of one's desires (*latent content*), though these appear in disguised form (*manifest dream content*). As Freud wrote:

The dream-thoughts and the dream-content present themselves as two descriptions of the same content in two different languages; or, to put it more clearly, the dream-content appears to us as a translation of the dream-thoughts into another mode of expression, whose symbols and laws of composition we must learn by comparing the origin with the translation. The dream-thoughts we can understand without further trouble the moment we have ascertained them. The dream-content is, as it were, presented in hieroglyphics, whose symbols must be translated, one by one, into the language of the dream-thoughts.³

Through the interpretation of the dream symbols, by free association with each, the analyst gains insight into the impulses which have been repressed.

Freud described several mechanisms in addition to symbolism

³ Sigmund Freud, *The Interpretation of Dreams*, in A. A. Brill (Ed.), *The Basic Writings of Sigmund Freud*, New York: Random House, Inc., 1938, p. 319.

which also operate to differentiate the dream thoughts (latent content) from the dream (manifest content). These transforming processes—condensation, displacement, and secondary elaboration—are called dream work. *Condensation* refers to the tremendous compression of the dream thought material and the construction of new and mixed images (composite persons and words). *Displacement* is the distortion of the sensory intensity attached to the dream thoughts. Factors which hold only a peripheral position in the thought are made the center of the manifest dream, and vice versa. *Secondary elaboration* produces an apparent, though deceptive coherence in the elements of a dream.

"One of the most remarkable things about the psychology of Freud is that it writes down the content, i.e., a lexicon of the unconscious," Ferenczi writes, "but also formulates the rules of peculiar grammar and primitive logic which reign there so that the strange productions of the dream, and slips of every day life, and neurotic and psychotic symptoms become full of meaning and intelligible."⁴

Some have felt that there is no necessary connection between psychoanalytic therapy and the process of dream interpretation. For example, Jastrow suggests that the subject "may reveal in dreams unphases of his personality and motivation-schemes which he is unwilling, or unable, to discover by conscious intention. One may agree with every one of these 'discoveries' of dream mechanism and yet reject almost in toto the detailed psychoanalytic interpretation of the dream material."⁵ Freud, however, considered the process of dream interpretation to be closely linked to his theory. Certainly, as Jastrow suggests, one can accept the data of dreams and still reject their interpretation according to Freudian doctrine. But it is the analysis of dreams which makes psychoanalysis what it is.

That there is a certain degree of mysticism in some approaches to dreams seems undeniable.⁶ If one is clever enough he may attach

⁴ S. Ferenczi, "Freud's Influence on Medicine," in S. Lorand (Ed.), *Psychoanalysis Today*, New York: International Universities Press, 1944, pp. 1-11.

⁵ Joseph Jastrow, *Freud, His Dream and Sex Theories*, New York: The World Publishing Company, 1932, p. 57.

⁶ Ferenczi attempts to defend Freud on the following grounds: "He believed that measured by the standard of the psychological knowledge of the time, the efficacy of these methods must appear inexplicable or even mystical. Knowledge gathered through their application bears the marks of the mystical and does not meet the scientific requirement of clarity. Yet Freud had success with the improbable; the apparently unfathomable was exposed by his method of free association" (S. Ferenczi, *op. cit.*, p. 3).

almost any meaning he desires to a particular dream. Freud was not unaware of this fact but believed that by free association he could construct a coherent train of thought as growing out of a dream that would lead to the referent of the dream element.

PSYCHOSEXUAL THEORY OF PERSONALITY DEVELOPMENT

In view of the importance that psychoanalytic theory assigns to sexuality it is not surprising that the analysis of personality development should center about this drive. Sexual development is believed to pass through three fundamental stages: (1) the infantile period, from birth to the fifth or sixth year; (2) the latency period, from the fifth or sixth year until puberty; and (3) the adolescent period, which lasts approximately until the individual is out of his teens. Of these periods, the infantile is considered to be by far the most crucial in its implications for personality development. Both ego development and libidinal action are profoundly affected by the experiences encountered at this stage of life.

The infantile period in turn passes through three stages of what is called object-finding. The first stage is termed the *autoerotic* and has reference to pleasurable bodily sensations and centers in various organs of the body. At this point the libido is somewhat diffuse and is satisfied only by purely organic gratifications. The localization of autoerotic pleasures also develops by steps which involve three different body regions. The first of these is the *oral* stage, followed by the *anal*, and third in the series is the *genital* or *phallic* stage. This stage completes the steps in libido localization, although interest in genital manipulation becomes intensified at puberty. According to Freud, the three stages of object-finding do not occur in a strictly chronological sequence. In fact, they develop to a considerable extent simultaneously; the second and third stages begin before the first stage has been completed.

ORAL-EROTIC STAGE

Since a child's very existence depends upon his mother's care, this relationship is of utmost importance to the infant's psychological organization. Food is the primary object of this care and breast feeding usually the sole means of deriving food. This period of the

infant's life is the *oral-erotic* stage. It is through sucking that the young organism derives its principal source of pleasure and reduction of tension. Considered thus, the erotic drive is centralized in the movements and reactions of the mouth.

At this stage of development the infant has not yet differentiated himself from the external world and thus is incapable of forming object relations. Oral activity during this period is considered by Freud to be fused with sexual needs. As Freud wrote, "The object of the one activity is also that of the other; the sexual aim then consists in the incorporation of the object into one's own body, the prototype of the *identification*, which later plays such an important psychic role."⁷ The importance of the oral stage to many students of child development is underlined by Ribble who writes, "From my observation of 600 infants in the lying-in hospital, I am thoroughly convinced that a favorable sucking experience for the first three months contributes considerably to the development of several aspects of structure and behavior."⁸

Some investigators are, however, not convinced that oral activity, particularly breast feeding, is of crucial importance in later personality development. Negative results in this respect were obtained in a study of the relation between adult personality and infant feeding gratification.⁹ Thurston and Mussen examined the personality patterns of 91 male university students by means of the Thematic Apperception Test (TAT). (The mothers previously had been sent questionnaires with covering letter asking for information concerning aspects of the subject's nursing—weaning, duration of bottle-feeding, and the like.) The results of the measurement of the subjects' personality traits were assessed by the investigators as follows: "... we have been unable to find any relationships between feeding gratification or nongratification . . . and adult personality as revealed by responses to the TAT."

Blum and Miller¹⁰ came to a somewhat different conclusion in

⁷ Sigmund Freud, "Three Contributions to Theory of Sex," in A. A. Brill (Ed.), *The Basic Writings of Sigmund Freud*, New York: Random House, 1938, p. 597.

⁸ Margaret A. Ribble, "Infantile Experiences in Relation to Personality Development," in J. McV. Hunt (Ed.), *Personality and the Behavior Disorders*, New York: The Ronald Press Company, 1944, Vol. II, pp. 621-653.

⁹ J. R. Thurston and P. A. Mussen, "Infant Feeding Gratification and Adult Personality," *Journal of Personality*, 1950-51, 19:449-458.

¹⁰ G. S. Blum and D. R. Miller, "Exploring the Psychoanalytic Theory of the 'Oral Character'," *Journal of Personality*, 1951-52, 20:287-304.

connection with their study of the "oral character" type of individual. These investigators were interested in ascertaining whether or not the conventional experimental methods used in psychology would prove useful in the exploration of psychoanalytic theory. To test their hypothesis that such theory (in this case the existence of oral character) *can* be phrased, as they put it, in operational terms, these investigators studied 18 third-grade pupils, using purposive mouth movements as criteria of oral character. These movements, i.e., thumbsucking, licking the lips, tongue rolling, and bubbling were observed and recorded in constructing a criterion measure for oral movement. The operational definition of orality was used as a basis for the examination of psychoanalytic hypotheses as deduced from the literature. To expedite this examination, teacher ratings, time sampling, and sociometric and experimental situations were employed to stabilize the data. Specifically, the correlations computed indicated a strong relationship between oral character and "extreme interest in food" and "social isolation." Only a fair relationship was revealed for the "need for liking and approval," "concern over giving and receiving," and "boredom tolerance," while the hypotheses of "need to be ingratiating," "inability to divide loyalties," and "depressive tendencies" went unsupported. Remaining equivocal were "dependency" and "suggestibility." In general, the findings support the utility of psychoanalytic conceptions concerning the importance of early oral experiences.

ANAL-EROTIC STAGE

In the anal-erotic stage of psychosexual development the eliminative functions and organs provide the principal erotic satisfactions. At first, pleasure is found in the expulsion of excreta, later it is attained through retention. According to psychoanalytic theory, anal functions enable the child to assert himself and gain some control over his environment. In fact, he even finds it possible to release some of his hostility by withholding elimination or by violent expulsion. Whereas the oral zone served as the chief libidinal focus during approximately the first nine months, afterwards it is the anal zone which serves as the chief agent of excitation. "The primary aim of anal eroticism is certainly the enjoyment of pleasurable sensations in excretion. Later experience teaches that stimulation of the rectal mucosa may be increased by holding back the fecal mass," explains

Fenichel. "Fear of the originally pleasurable excretion may lead to retention and to the discovery of retention pleasures. The possibility of achieving a more intense stimulation of the mucous membrane, and with it a more intense sensation through the increased tension of retention, is responsible for the tension pleasure which is greater in anal eroticism than in any other eroticism."¹¹

PHALLIC OR GENITAL STAGE

The third stage of psychosexual development is the phallic period, during which the genital zones become the center of the libidinal attachment. It is during this period that the sex organs are discovered and their possibilities for erotic pleasure utilized. This stage is followed by a latency period during which there is little direct expression of sexuality and still later by one in which the libido becomes directed toward one or more external love objects.

THE OEDIPUS AND CASTRATION COMPLEXES

The male child's first libidinal attachment is to his mother, since she plays the primary role in his oral gratification. With the advent of the genital phase of development the mother assumes a stronger sex role in the boy's life and, according to Freud, becomes the object of his love. This phenomenon Freud called the *Oedipus complex*, after the story of a king of ancient mythology who is said to have killed his father and afterwards to have married his mother without realizing her identity. The Oedipus complex represents the boy's unconscious desire for sexual union with his mother. The boy is, of course, only dimly aware of the sexual nature of his wish; he merely manifests a desire for closeness, for bodily caresses, and for other physical gratifications.

As the child's sexual attachment to his mother develops, the father comes to be regarded as a rival for her love, with the result that the boy entertains wishes that his father may suffer injuries or possibly death. In fact, so important did Freud consider these phenomenon of early libidinal behavior that he wrote,

In the very earliest years of childhood (approximately between the ages of two and five) a convergence of the sexual impulses occurs of which, in the case of boys, the object is the mother. This choice of

¹¹ Otto Fenichel, *The Psychoanalytic Theory of Neurosis*, New York: W. W. Norton and Company, Inc., 1945, p. 66.

an object, in conjunction with a corresponding attitude of rivalry and hostility towards the father, provides the content of what is known as the *Oedipus complex*, which in every human is of the greatest importance in determining the final shape of his erotic life. It has been found to be characteristic of a normal individual that he has learned how to master his Oedipus complex, whereas the neurotic subject remains involved in it.¹²

Centrally involved in this withdrawal is the *fear of castration*. According to Freud, the resolution of the Oedipus complex is accomplished by means of repression. As he wrote,

I see no reason to deny the name of "repression" to the ego's turning from the Oedipus-complex, although later repressions are for the most part effected with the participation of the super-ego which is only built up during this process. . . . If the ego has not really achieved much more than a repression of the complex, then this latter persists unconsciously in the *id*, and will express itself later on in some pathogenic effect.¹³

Freud came to believe that this complex is almost entirely of an unconscious fantasy nature and that a mother image in the unconscious constitutes the love object.

Nevertheless, in the normal course of events the boy, who comes to fear that his father will retaliate, possibly by depriving him of his highly prized genital organ, sublimates his feelings toward his mother into the emotion of tender affection and identifies with his father as a male, thus bringing to a close both the Oedipus and castration complexes.¹⁴ The identification with the father provides the most important basis for the development of the superego. Thus the strength of the superego is closely related to the strength of the Oedipus complex.

In the case of a female child, psychosexual development is said to

¹² Sigmund Freud, "Two Encyclopedia Articles, (A) Psycho-Analysis," in *Collected Papers*, London: The Hogarth Press, 1950, Part V, p. 120. Edited by J. Strachey.

¹³ Sigmund Freud, "The Passing of the Oedipus-Complex," in *Collected Works*, London: The Hogarth Press, 1946, Part II, pp. 269-276. Authorized translation under the supervision of J. Rivière.

¹⁴ Fromm recently has suggested that instead of representing a love attachment with the mother, the Oedipus complex actually involves a rebellion against the father's authority. On this basis the Oedipus constitutes the child's struggle for autonomy or independence of action. It is the "destructive passion" resulting from the striving which must be repressed and which may lead to manifestations later in life of symptoms of neurosis (Erich Fromm, "The Oedipus Complex and the Oedipus Myth," in R. N. Anshen (Ed.), *The Family: Its Functions and Destiny*, New York: Harper & Brothers, 1948, pp. 334-358).

be marked by hazards peculiar to her sex. In this instance the castration complex precedes rather than follows the Oedipus complex. According to Freud, as the girl learns, to her disappointment, that she is inferior to boys genitally in that she does not possess a phallus, she blames her mother and rejects her in favor of her father. Thus appears the female Oedipus complex (once called the Electra complex) in which the girl directs her sexual needs toward her father. Since there is no specific event such as the castration complex to end the relationship of the female Oedipus complex, it is a slow process. It is gradually resolved through reidentification with the mother and sublimation of the sexual desires associated with the father, although the complex is never as completely resolved as in the case of the normal male.

EXPERIMENTAL EVIDENCE

An elaborate study of the castration and Oedipus complexes, utilizing 305 "normal" children (151 boys and 154 girls selected at random from a suburban school system) as subjects, was carried out by Friedman.¹⁵ The children were divided into sex age groups of two-year intervals ranging between the ages of 5 and 16 years, each group consisting of approximately 26 boys and 26 girls.

In the case of the Oedipus complex the principal projective instruments used were incomplete fables (which called attention to a projecting body organ), fantasy productions, reactions to certain aspects of picture cards, and the Szondi test. The research was conducted in such a way that some standardization of the data was made possible. As a result the writer stated that the responses may not have involved the "more subtle qualitative differences" that emerge with psychoanalytic probing. The analysis of the Oedipus complex was based upon the child's reactions to incomplete fables, i.e., concerning a walk in the park with either parent. The child was asked why, after a boy (or girl) had gone for a walk with his father (or mother), the other parent's face didn't look the same. The proportions of negative responses to cross-sex and same-sex parental figures then were noted.

The investigator believed that with regard to the castration complex in general, his results supported the psychoanalytic belief that

¹⁵ S. M. Friedman, "An Empirical Study of the Castration and Oedipus Complexes," *Genetic Psychology Monographs*, 1952, 46:61-130. See also C. M. Barnes, "A Statistical Study of the Freudian Theory of Levels of Psychosexual Development," *Genetic Psychology Monographs*, 1952, 45:105-174.

it plays a decisive role in the child's emotional development. Although the boys provided more clear-cut evidence of this complex, the girls apparently "recover more quickly from anxieties relating to castration." Friedman concluded from his findings that the failure of previous investigations of the Oedipus and castration complexes was due largely to the inadequacies of the research procedures.

THE NEW TREND IN PSYCHOANALYSIS

It was inevitable that Freud's theory of personality development would come under heavy attack. Its strong emphasis upon unconscious, sexual, and infantile determinants of behavior was certain to arouse resistance in many quarters. One of the most exhaustive critiques of Freudian doctrine was that prepared by Sears, who examined 166 studies related to psychoanalytic theory and concluded that, "the experiments and observations examined in this report stand testimony that few investigators feel free to accept Freud's statements at face value. The reason lies in the same factor that makes psychoanalysis a bad science—its method."¹⁶ As the following quotation indicates, Freud himself was fully aware of the tentative and incomplete status of his formulations: "... we must not be surprised if the differences between a person who has not and a person who has been analysed is, after all, not so radical as we endeavour to make it and expect and assert that it will be."¹⁷

Recent developments in psychoanalysis emphasize totality and integration as being important concepts upon which therapy is dependent. Cultural pressures and all that they imply also are emphasized, the sex drive assuming a somewhat lesser role in the "total" interaction of organism and environment. The emphasis has shifted from the "unconscious" to the cultural determinants of neurosis. As De Forest writes,

One aim of psychoanalytic therapy is that of freeing the neurotic patient from the protections which his childhood environment has forced upon him and which he has retained under the illusion that that environment is constant and continuous throughout life. The other and more constructive aim is the search for the patient's true

¹⁶ R. R. Sears, "Survey of Objective Studies of Psychoanalytic Concepts," *Social Science Research Council, Bulletin* 51, n. p., 1943.

¹⁷ Sigmund Freud, "Analysis Terminable and Interminable," in *Collected Papers*, loc. cit., p. 329.

personality, the restoration and strengthening of his integrity when it is realized, and the securing and continual maturing of the capabilities with which he was born. The strong ally in this successful search is the impulse for growth found in nature.¹⁸

Writing about the recent modifications in psychoanalytic theory, Brierley sums up what in her opinion represents four of the more important of their implications:

First of all, "the psyche has become a threefold system consisting of a reservoir of instinctual impulses, the id, a conscious or potentially conscious ego-system, concerned with reality testing and the adaptation of impulse to reality conditions, and an unconscious ego-system, concerned in the internal adaptation and regulation of instinctual impulses."¹⁹

Thus the ego and superego now are considered to be organized systems through which the primitive desires and instincts are regulated. The shift is away from the unconscious to a more "rational" approach in which the ego and superego are regulatory in nature.

"Secondly," says Brierley, "we can no longer study libidinal impulses by themselves."²⁰ Culturally derived hostility as a motivating factor must be taken into consideration in the release of libidinous impulses. Earlier Freudian doctrine regarded impulses as being dynamic forces in themselves. The newer movement emphasizes the wider implications involved in libidinal impulses—especially in young children. "Thirdly, the defense mechanisms of introjection and projection have shown themselves to be important . . . as general or normal mechanisms of defense. . . ." ²¹ Rather than being symptoms of radical disturbances, these mechanisms are autocorrective—in fact they appear prior to repression itself. This movement in psychoanalysis appears to bear out the continuum, rather than the polar, concept of mental disorder, viz., normal and abnormal behavior are a matter of degree rather than of kind.

"Fourthly," continues Brierley, ". . . it is evident that we can no longer study development in terms of a theory of impulses alone."²² There is a concept of interaction which looks upon personality as a

¹⁸ I. de Forest, "Restoration of Personality Integrity: The Keynote of Psychoanalytic Theory," *Character and Personality*, 1944-45, 13:228-236.

¹⁹ M. Brierley, *Trends in Psychoanalysis*, London: The Hogarth Press, 1951, p. 30.

²⁰ *Ibid.*, p. 31.

²¹ *Ibid.*

²² *Ibid.*

matter of both organism and environment in an interactive process. For example, although impulses may be directed through the conscious mind, they are ultimately manifested as social phenomena. This recognition of the role of the social environment is one of the more hopeful aspects of a theory so involved in personal events. "The most immediate consequence of the new views," comments Brierley, "was the stimulation of inquiry into the relations of the psychic systems and, in particular, into the role of the super-ego both in pathogenesis and in so-called normal life."²³ From this report there has emerged a more realistic view of the nature of personality development. For one thing, the significant effects of the cultural environment on personality are being realized and, for another, there is a de-emphasis of abnormality per se. An effort is being made to see, as it were, both sides of the coin. Finally, one can see a movement toward an integrated view of the nature of personality.²⁴

The success of a therapeutic method does not necessarily imply the validity of its underlying assumptions. Research has indicated that psychoanalytic theory in some instances may have been too narrowly conceived. In fact, Freud himself in 1926 changed his views concerning anxiety. He had previously believed anxiety to be the result of frustration of libidinal impulses. Further investigation, however, convinced him that anxiety *precedes* repression of the libidinal impulses. It is a kind of danger signal to the ego which warns of the dire consequences from free expression of these impulses. Anxiety thus is the forerunner of danger to the organism, not the product of repression of unacceptable impulses.

COMPETING VIEWS

In spite of recent modifications in psychoanalytic theory considerable concern with the idea of the unconscious still is in evidence. There is thus, unwittingly perhaps, a tendency to overlook the implications of the social arena in which personality operates. Mental disorders possibly may be a product of primal urges. Nevertheless, the manifes-

²³ *Ibid.*, p. 33.

²⁴ Bergler puts it this way: "Psychoanalysis began and has continued as an empirical science. With empirical facts as the foundation, theories have been constructed. . . . The first half century of analysis was not static; let us hope that the future will live up to the past and sterile conservatism will be avoided" (E. Bergler, *The Superego*, New York: Grune & Stratton, Inc., 1952, p. 3).

tation of these urges involves a social problem in the here and now. We may not be able to retrace primitive or forgotten fears and impulses, but social misbehavior is apparent. As Muller reasons, "Even the undeniable therapeutic successes do not necessarily prove the truth of psychoanalytic theory. Erroneous theories may account satisfactorily enough for the facts at hand (as they have throughout the history of science), 'cures' have also been worked by religious and magical means, and psychoanalysts do not really know why their own cures often fail to work."²⁵

One may well question associations such as psychoanalytic theory proposes between infant experience and adult personality. With the almost infinite number of variables intervening between these two periods, it would seem more logical to deal with mental disorders from the viewpoint of a number of variables. Virtually no one any longer denies the influence of childhood experience upon personality development, but to single out only that period is to overlook many other vital and influential conditions of living.

We hardly can neglect the social and developmental aspects of personality in favor of exclusive emphasis upon the effects of incidents encountered in childhood and in the unconscious. Although the psychoanalytic emphasis on "depth" has constituted a significant contribution to our understanding of personality, it would seem to be a sign of progress that many modern practitioners are beginning to introduce additional variables in connection with the theory. Ackerman sums up the matter as follows:

There are some aspects of psychoanalytic therapeutic technique that have an immediate bearing on the question of its application in the study of ego behavior. The traditional therapeutic technique has tended to emphasize a temporary shedding of the patient's ego, of his reason, a denuding by the patient of the social layers of his identity in order to promote access to the unconscious and biologically conditioned drives. Of course, this technique, selective as it is, has brought an incalculable reward in insight into intrapsychic mechanisms of behavior. One wonders, however, at what cost, in terms of failure to understand the social functions of personality, has this emphasis on "shedding of the ego" been preserved.²⁶

²⁵ H. J. Muller, *Science and Criticism*, New Haven, Conn.: Yale University Press, 1943, p. 144.

²⁶ N. W. Ackerman, "'Social Role' and Total Personality," *American Journal of Orthopsychiatry*, 1951, 21:1-17.

As a result of issues such as those just discussed, certain of Freud's followers came to disagree with his position and proceeded to establish competing theoretical systems of their own.

ALFRED ADLER

The first to break with the orthodoxy of Freudianism was Alfred Adler, a prominent member of the original movement. Adler not only separated himself from the founder of psychoanalysis; he set up his own system of *Individual Psychology*.²⁷ Adler took exception to the implied dualism in Freud's concept of the conscious and the unconscious. In his view behavior was construed as an *integrated* striving toward some goal in which the conscious and unconscious are aspects of a unified process, i.e., the self.

The principal feature of Adler's theory lies in its emphasis on the desires which are related to the inferior and superior facets of the self. The now familiar terms *inferiority complex* and *superiority complex* are products of Adler's thought. Adler believed that the inferiority complex is more than merely a phase of the self. To him it was "almost a disease whose ravages vary under different circumstances."²⁸ Adler attributed more importance to the assertion of the self in personality development than to the drive of sex. It was his contention that very early in life the individual comes to an awareness of the awesomeness of the world about him and his own lack of competence to face this world. The desire to achieve equal significance with others is the chief result of this conscious awareness of individual weaknesses. This desire is brought about as a consequence of the individual's struggle to overcome his inferiority. Adler expressed this view as follows:

The science of Individual Psychology developed out of the effort to understand that mysterious creative power of life—that power which expresses itself in the desire to develop, to strive and to achieve—and even to compensate for defects in one direction by striving for success in another. This power is teleological—it expresses itself in the striving after a goal, and in this striving every bodily and psychic movement is made to co-operate. . . . This goal enables us to understand the hidden meaning behind the various separate acts—we see them as parts of a whole.²⁹

²⁷ Alfred Adler, *The Science of Living*, New York: Garden City Publishing Co., 1929.

²⁸ *Ibid.*, p. 74.

²⁹ *Ibid.*, pp. 32-33.

Thus we have a view of personality which sees development in terms of the self purposefully striving to achieve and maintain status. Each individual attempts to compete with his fellows in whatever field he may find himself. According to Adlerian doctrine, every individual possesses some particular weakness or inferiority of mind or body, or of both. For example, it was Adler's belief that since the female is the weaker and generally not the superior of the two sexes, striving for superiority on her part assumes a distinctive character—"the masculine protest," as Adler called it. The key to the entire social process is found in the fact that persons are always striving to find situations in which they can excel.

Since each individual comes to recognize his own inferiority, his life is structured in terms of seeking compensation for this inferiority. Compensatory behavior may assume the following forms: (1) by dint of hard work the inferiority may be overcome; (2) by achieving success in some other area of life the individual may overcome his original lack; or (3) by withdrawing from life and taking refuge in some form of neurotic or even psychotic behavior the individual finds relief.

1. ACHIEVING SUPERIORITY

Familiar illustrations of this type of compensatory behavior are the success stories of individuals who have been impoverished or in poor health. Men who once were underdeveloped and weak have, like Theodore Roosevelt, through persistent effort become athletes or heroes. Persons who, having suffered great poverty, are driven to amass a fortune, find in their wealth a means for overcoming the inferiority feelings entailed by poverty. Adler assumed that the original inferiority provided the drive for seeking superiority.

2. SUPERIORITY IN ANOTHER SPHERE

Some individuals who because of family obligations could not overcome the handicaps of poverty or whose physical defects were too great to be overcome have managed, despite these weaknesses, to achieve superiority in other spheres of life. The genius of Charles Steinmetz, for example, was expressed in his work on electricity. Although handicapped by a crippled body, Steinmetz lived to enjoy fame and fortune from his great contributions. Another example is

recorded in the valuable work of the Negro scientist, George Washington Carver, who lived and worked under tremendous handicaps.

3. NEUROSIS OR PSYCHOSIS

Many individuals who have been unable to attain superiority, or even a sense of personal significance, in the unending struggle of modern living have escaped into the protection of a neurosis or psychosis. In this way the person protects himself from the harsh awareness of his failures to achieve success and lives in a less demanding world of his own making. His behavior may assume the mannerisms of the successful pattern of behavior for which he had striven in vain. The man who failed in business may write checks for staggering sums and thereby endeavor to restore the self-confidence his failure has destroyed. In this sense most of us compensate for our lack of success in one way or another. The undergraduate who is too frail to play football sees himself in his daydreams as the hero of the big game. The meek person pictures himself as a conqueror. In extreme cases these escapes gradually become confused with reality and the individual develops a psychosis.

According to Adler, man is not so much concerned with unconscious strivings generated by sex (Freud's view) as he is characterized by drives designed to compensate for inadequacies. Behavior is not primarily a matter of antagonism between the conscious and the unconscious as dictated by sex; rather it is an expression of the individual's endeavor to overcome his weaknesses through achieving success. Since sex life is subordinated to the success motive, Adlerian theory is steeped in self-assertiveness, an assertiveness which may manifest itself as hostility. In contradistinction to Freud's view, the cardinal feature of personality dynamics is not so much repression as it is efforts to overcome the inferiority complex which harasses so many individuals.

A REVIEW

Adler's work has proved of significance in furthering an understanding of personality. There is little doubt now that at least in the various societies of Western civilization, individuals persistently strive for some form of adequate status. Inferiority of one kind or another can inhibit the satisfactory development of personality.

Although it is true that men strive to excel, they are also power-

fully moved by sex. Adler tended to overlook the vital role which sex plays in human motivation. Ambition itself may well arise out of the sex desire of the individual. To ascribe striving solely to a desire for status and a sense of self-esteem may ignore the social implications of striving itself. Men do not struggle for status per se but for status as measured by society—and society changes from time to time. It is doubtful whether a sense of personal worth is definable as something in itself.

CARL JUNG

Another analyst who deserted the Freudian view of psychoanalysis was Carl G. Jung, who established his own school of *Analytical Psychology*. Jung disagreed with both Freud and Adler; he maintained that the dynamics of the individual are expressed in terms of his "life energy." This energizing force is the aggregate of all of the impulses which enter into the libido, not just those concerned with sex or the desire for superiority.

To augment his energy principle Jung added to the classic concept of the unconscious his own purportedly deeper "collective unconscious," which contains the "archetypes" of all the primitive needs and ambitions of the human race. "The collective unconscious consists of the sum of the instincts and their correlates, the archetypes," he declared. "Just as everybody possesses instincts, so he also possesses archetypes."³⁰ In addition to containing these racial materials, the collective unconscious also is the repository of the repressed materials of the individual himself. In the Jungian formulation, psychoanalysis must be more broadly—even mystically—concerned. For if each individual inherits the needs, fears, and aspirations of the human race, any analysis must include historical and anthropological concerns.

Since Jung sees human life in terms of psychic energy (the mental aspect of the all-inclusive life force or energy) dreams and their symbols take on new significance. In other words, dreams and their symbols have not only a "material" but a "functional" significance. In Freud's theory symbols displayed during dreams are related to such material aspects of experience as objects or persons. However, in Jung's theory functional symbols are even more important, since they provide us with clues to the movements and direction of the

³⁰ C. G. Jung, *Contributions to Analytical Psychology*, New York: Harcourt, Brace and Company, Inc., 1928, p. 281. Translated by H. G. and C. F. Bayne.

libido. Symbols thus are related to tendencies on the part of the individual, as well as to people and events which have aroused these tendencies. The Freudian psychoanalysts have rejected this functional bias of Jung on the ground that it is mystical. Freudian analysts hold that symbols represent real experience and that Jung's concept of functional symbols represents an effort to build up tendencies which cannot be explained by the symbols.

To bolster his contentions, Jung conducted extensive research into the affective elements involved in word-association responses. He endeavored to show that the length of time a person requires to respond with an association for a word he hears gives a clue, together with the response itself, to his emotional tendencies. In Jung's view words carry affective implications in themselves, as well as presenting evidence of deeper emotional imbalance. Sometimes a response is slow—in fact there may be no response from a given person to certain words on the association list. Jung attributed this type of reaction to the unpleasant emotional charge attached to that particular word and not to the disturbance of personality with which it purportedly is associated. In Jung's system the word-association technique can provide a preliminary basis or diagnosis for the treatment of the disturbed personality.

Another phase of Jung's system has been his concern with that ancient standby, psychological typing, of which he said: "In spite of a great variety of motives and tendencies, certain groups of individuals, characterized by an obvious conformity in their manner of motivation, can be differentiated."³¹ More specifically, Jung separated humanity into two distinct classes, namely, the *general attitude* types and the *function* types.³² The general attitude type he broke down into the now well-known *introvert* and *extrovert* types, respectively. The introvertive type withdraws into himself, seeing the world from his own subjective point of view. The extrovert, on the contrary, is interested in the world of objects and of other people and adapts himself to it. However, when he declares that "our immediate life is only a world of images," Jung does not adequately define reality.

³¹ *Ibid.*, p. 300. Jung further writes that, "The differentiation of type begins very early, so early that in certain cases one must speak of it as being innate" (*Ibid.*, p. 303).

³² C. G. Jung, *Psychological Types*, New York: Harcourt, Brace and Company, Inc., 1923, Chap. 10.

According to Jung, there are four subtypes of both introversion and extroversion; these are, the *thinking*, the *feeling*, the *sensation*, and the *intuition* types, respectively. The thinking and feeling types are held to be rational, whereas the sensation and intuition types are classified as irrational. An individual of the feeling type is swayed by emotion rather than reason. Such a person, when introverted, experiences intense and strong feelings. On the other hand, if the feeling-type individual is extroverted (usually a female) she is motivated by the "logic of feeling." Such a person must be moved emotionally before thought is possible. We all are familiar with the colloquial expression, "That [picture] leaves me cold," which suggests that an experience must be "felt" before it is possible to entertain any logical considerations concerning it.

The introverted sensation type, following Jung's formulation, is seen in, for example, the painter who seeks in the world of reality only those tones and moods which can help him with his art. The extroverted sensation type is the scientist who endeavors to wrest from external reality that which makes it real. The introverted sensation type gathers from the external world only such materials as his subjective nature desires for expression; thus he overlooks external reality. The extroverted sensation type is concerned directly with objective reality.

The introverted intuition type of personality is recognized throughout history in the lives of the mystics who sought through personal meditation to commune with the "transcendental." The extroverted intuitive type does not shun the external world but lives dynamically in it. An illustration of this personality type is seen in the stage actor who portrays his characters as he "feels" the audience wishes them portrayed.

A REVIEW

It is true that there is a certain degree of emotional intensity in all behavior, but to call this "life energy" is categorization of an extreme kind. There is no way of measuring such energy in terms of psychological constructs. If we accept Jung's psychological types we find ourselves in an equivocal position, to say the least. Sweeping generalizations such as his tend to ignore one of the most obvious and fundamental facts of psychology, individual variation. Although it is essential that we have psychological principles by which to under-

stand personality and with which to conduct research, the arbitrary classification of human beings seems untenable. It should be added that besides accepting the dubious concept of typing, Jung's theory skirts dangerously close to a metaphysics beyond the limits of psychology. In his discussion of reality he brings in matters of the "spirit," writing that "life is a test of truth of the spirit," and that "spirit gives meaning to his life, and the possibility of the greatest development."³³

THE NEO-FREUDIANS

Since its inception the psychoanalytic movement in America has increased steadily in influence and prominence. However, differences of opinion among the leaders of the new movement have not been uncommon. Followers of Freud have varied from more or less complete acceptance to sharp criticism of his tenets.³⁴ Although the basic framework of Freud's position has not been rejected outright, new developments in both the physical and social sciences appear to have necessitated some changes in outlook.

The Neo-Freudians have not, in the main, attempted to establish movements in their own right. Instead, they have endeavored to refine and improve Freud's work in the light of new clinical discoveries, as well as their own particular biases. Thus their approach to the problems of personality has tended to be more "superficial," that is, more concerned with concrete situations within the context of society itself.

KAREN HORNEY

The late Karen Horney, one of the leaders of the psychoanalytic movement in America, proposed to restate certain of the Freudian basic principles in a new and somewhat different form. "My conviction, expressed in a nutshell," she wrote, "is that psychoanalysis should outgrow the limitations set by its being an instinctivistic and a genetic psychology."³⁵

³³ C. G. Jung, *Contributions to Analytical Psychology*, p. 98.

³⁴ For example, the book by Franz Alexander and T. M. French, *Studies in Psychosomatic Medicine*, has virtually become the standard textbook in many medical institutions. These writers have warmly espoused the Freudian orthodoxy with respect to therapeutic measures. *Studies in Psychosomatic Medicine*, New York: The Ronald Press Company, 1948.

³⁵ Karen Horney, *New Ways in Psychoanalysis*, New York: W. W. Norton and Company, Inc., 1939, p. 8.

Horney noted that her own and other practitioners' patients frequently present problems apparently beyond the scope of psychoanalytic procedures. To her, certain of Freud's postulates seemed mystical and without roots in the culture which appears to go far toward shaping personality. She emphasizes the *sociological* aspects of psychoanalysis—the individual's behavior as it is influenced by the forces in his social milieu.

Horney thus came to approve of "short-cutting" the therapeutic process. She treated patients in the actual social situations which gave rise to the emotional behavior which they manifested. It was her contention that a patient's life situation provides the clues by way of which the hidden meanings of his symptoms, words, and dreams can be understood.

Apart from strict Freudian orthodoxy, Horney's point of view may be summed up under three propositions: (1) that sex problems are *effects* rather than causes of the neurotic character structure, (2) that moral problems, as engendered by the individual's culture, must be recognized and met, and (3) that such human faculties as will power, judgment, and the like should be enhanced. Thus problems regarding sex no longer are to be considered, as Freud had insisted, the dynamic center of the neuroses. More than tacit recognition is given the role of the culture in bringing about conflicts concerned with sex. From this position, sex no longer is regarded as merely an agent for executing or checking instinctual desires—it too is influenced by the culture.

HARRY STACK SULLIVAN

Another example of the new approach to psychoanalytic doctrine is that advanced by the late Harry Stack Sullivan who also was concerned with the sociological aspects of personality adjustment. He combined this point of view with developmental exploration and emerged with a framework somewhat different from that of most psychoanalysts. Sullivan investigated personality (and maladjustment) in terms of the developmental cycle of the individual. He traced the individual's history in considerable detail from earliest infancy to adulthood. From such a study he would reach certain conclusions as to the nature of the emotional disturbances manifested later in life. Like Freud, Sullivan placed great emphasis upon childhood experiences in the formation of the adult personality structure. He differed

with Freud principally in that he emphasized self-esteem rather than sex per se as a major dynamic factor. Threats to the individual's self-esteem, rather than the vicissitudes of sex, are responsible for disturbances of personality.

According to Sullivan, self-esteem as such is derived from the culture in which the individual developed. Thus he insisted that "no matter what kind of social organization there is, everyone who is born into it will, in certain ways, be adapted or adjusted to living in it."³⁶

Although in general he proceeded along the route laid out by Freud, Sullivan expanded his own theory in terms of both biological and sociological development. Since the human being is a social product, he derives his *raison d'être* from his associations with other persons. Thus the psychoanalyst must be not only a mere observer of his patient but a *participant* with the patient in the total process of therapy.

Whereas Freud turned his spotlight on the libido and its operations, Sullivan emphasized the ego and the means by which it attempts to maintain an adjustment. In place of the designation *ego*, Sullivan substituted his own term, *self-system*, which he believed was molded into its individual form both by the anxiety emerging from parental disapproval and the feeling of security which comes from parental love and approval. It was Sullivan's further contention that all of his elders (society) are responsible for the child's developing pattern.

ERICH FROMM³⁷

Probably the most vocal influence among the Neo-Freudians is Erich Fromm, who has written a number of books for the general public. Fromm contends that the mores and taboos of our present society place too great a premium upon conformity. This "outer-imposed" conformity to group pressure and demands is accomplished at the expense of the individual's "inner needs." There is much in the present social scene which Fromm regards as inimical to desirable personality development; he looks upon many customs and social usages as tending to inhibit personality adjustment. Puritanical no-

³⁶ H. S. Sullivan, *The Interpersonal Theory of Psychiatry*, New York: W. W. Norton and Company, 1953, p. 5. Edited by H. S. Perry and M. L. Gawel.

³⁷ See Erich Fromm, *The Sane Society*, New York: Rinehart & Company, Inc., 1955.

tions of sex, for example, with their taboos on even discussion of the subject, have, according to him, brought about a great deal of psychological trauma among young people. Further, the drive toward material success in present-day culture, since it sets up false standards of value, has resulted in considerable frustration for some individuals.

SUMMARY

In this chapter it will have been seen that, employing a new technique of clinical analysis, Freud brought to the study of personality a powerful argument for the inclusion of sex as a prime consideration in the etiology of behavior pathology. The Freudian structure rests upon the construct that neurosis is a result of traumatic events taking place in infancy and childhood which subsequently were lost to memory as the result of repression. In the correction of the neuroses Freud attempted to penetrate the unconscious through free association and dream interpretation, procedures which purportedly are effective in bringing to awareness repressed material thus freeing the individual from infantile conflicts. One of his objectives was the ascertainment of some general principles of psychosexual development of the child.

Freudian psychoanalysis has been severely criticized because of its emphasis on sex. However, in the light of recent discoveries this criticism has seemed to some students of personality unnecessarily severe, particularly when it is realized how broadly the concept of sex was used by Freud. Moreover, Freud's system has undergone some transformations leading to greater emphasis upon the impact of the environment and the aspirations of the individual.

Two of the more prominent men closely associated with Freud who parted company with him and initiated movements of their own were Alfred Adler and Carl Jung. Being dissatisfied with Freud's insistence on the unconscious aspects of personality, Adler submitted instead his own view of personality as a unitary process expressing itself in striving toward self-realization. It is not the sex drive which is all important, insisted Adler, but the need of the individual to achieve a sense of personal worth and significance in connection with the activities of daily living.

Carl Jung regarded human behavior as a product of the life energy, a concept which is broader than either Freud's libido or Adler's

emphasis on ego involvement. Each human being falls heir to all of the cultural accretions of the past, and it is this collective unconscious which, according to Jung, to a considerable extent shapes his personality.

Even more recently the Neo-Freudians, dissatisfied with both the theory and practice of classical psychoanalysis, have endeavored to present basic psychoanalytic principles in a more modern vein. In the main, they are concerned with the impact of the cultural milieu on the development of personality. Prominent among the Neo-Freudians are Karen Horney, Harry Stack Sullivan, Erich Fromm, and Franz Alexander, each of whom has presented his or her own view of the nature of psychoanalysis.

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10

The Organization of Personality

WE HAVE discussed certain aspects of acculturation which have their effects upon personality and have emphasized throughout the view that personality is an interactive process.¹ The environment shapes the individual, but he in turn reacts upon it in a way unique to him. What, then, is the "self," the "I" which distinguishes each person from his fellows? Many years ago Sir Thomas Browne expressed the problem as follows: "For tho we may wish the prosperous Appurtenances of others, or to be another in his happy Accidents, yet so intrinsical is every Man unto himself, that some doubt may be made, whether any would exchange his Being, or substantially become another Man."²

The poets have always drawn their answers from their own sources of inspiration. But the psychologist has endeavored to ascertain the nature of the self more scientifically. For the behaviorist the problem is simple. He makes no distinction between the self and the organism, thereby affirming his determination to deal strictly with observable movements. However, the organism's behavior during its efforts to maintain its equilibrium is, to say the least, a complex and interrelated matter. Some students of personality have seen, in responses to external situations, "inner" as well as "outer" aspects. In short, the

¹ In connection with his biodynamic theory of personality, Masserman stresses not only this interaction but also what he calls the "selective integration of the organism's field of reaction." As he writes, "Behavior is contingent upon and adaptive to the organism's interpretation of its total milieu, as based on its capacities and previous experiences" (Jules H. Masserman, *Principles of Dynamic Psychiatry*, Philadelphia: W. B. Saunders Company, 1946, pp. 100, 107).

² *The Works of Sir Thomas Browne*, London: Faber & Gwyer, Ltd., 1928, Vol. 1, p.

reflex arc, while a convenient measure of behavior, remains, for the present at least, merely an arbitrary standard. But what of the intangibles which cannot be measured? If life is reduced simply to movement why is this movement so varied and what is the source of our own qualitative evaluations. One view is that "the inner experience of the organism is colored by feeling, by pleasure and pain; although dependent on the environment the organism maintains its identity and through its special constitution it reconstructs the environment symbolically as part of its personal system, makes it an object of thought and feeling, a means of self-expression and of realization of purpose."³

THE NATURE OF TRAITS

To establish an organized theory of personality it has been found necessary to set up a frame of reference on which to build. This has been one of the most difficult of all psychological tasks. Which of the facets of an individual are we to accept as the self? And how can we recognize individual uniqueness? We have already seen how difficult it is to discern emotions through facial expression. Another approach has been to determine whether or not there is a consistent thread which runs through all of an individual's behavior. Thus, while he *presents many different* facets, we can recognize a given person by characteristic ways of doing things, that is, by certain *traits* which distinguish his behavior. For example, in the *Taming of the Shrew* Christopher Sly observes, "Am not I Christopher Sly, old Sly's son of Burton Heath, by birth a pedlar, by education a card-maker, by transmutation a bear-herd and now by present profession a tinker?" But, asks the psychologist, is there not some characteristic which marks Christopher Sly regardless of all other considerations? In all of his varied activities is there not a quality to his behavior which makes him what he really is and that alone? Psychologists have attempted to ferret out this unique quality by ascribing terms to various forms of behavior.

SOURCE AND SURFACE TRAITS

In the pages which follow we shall review the theories of psychologists who have attempted to define personality in terms of patterns

³ C. M. Campbell, *Human Personality and the Environment*, New York: The Macmillan Company, 1934, p. 40.

of adjustment commonly called traits. Cattell, who has done considerable work in this area, has suggested a definition of traits, a construct which he divides into *source* and *surface traits*. He writes:

Source traits have wider utility, stability, and meaning than surface traits. Each can either include ability, dynamic, and temperamental trait elements in a single "holistic" factor or be restricted, by the conditions under which the experimental data are measured, to one modality, as a "conditional" source trait. Source traits spring from influences that may be either in environmental objects and institutions—in which case they are "environmental-mold traits"—or from sources within the constitution of the organism, in which case they are "constitutional traits." Surface traits may be combinations of both. Both source and surface traits are likely to vary with the culture pattern and with the range of genetic, racial constitutions in the population.⁴

In viewing such traits from the vantage point of research, one is likely to conclude that an individual's traits determine his adjustments to life. Traits are found in varying degrees of intensity among people. It is this difference in degree which psychology has attempted to measure. However, there still is no consensus as to the precise nature of traits. Cattell's description no doubt is as adequate as it is possible to formulate under present circumstances. The chief instruments used to identify and measure personality traits are the questionnaire (inventory), the rating scale, and the much-disputed projection test. Out of these efforts at measurement has grown a large and impressive number of individual tests.

TRAITS VERSUS ATTITUDES

Despite varying opinions psychologists have generally accepted the term *trait* as designating a unique form of behavior. There are, however, other terms which have been used more or less synonymously with it. One such term, *attitude*, bears further examination because of its prominence in the literature. Although usually connoting something more specific and intense than a trait, the word *attitude* is often used in its place. Sherif and Cantril write:

Attitudes are not, of course, the only psychological components or states that determine that an individual will react to the environment in a selective or characteristic way. When the individual is hungry, thirsty, or sexually aroused, or in some other emotional

⁴ R. B. Cattell, *Personality*, New York: McGraw-Hill Book Company, Inc., 1950, p. 42.

state, or has been recently stimulated by a functional change in the receptor organ or in the organism at large, he reacts in selective or characteristic ways to the environment. Attitudes, then, are among the various psychological factors which determine the individual's selective reaction to his environment.⁵

An attitude may be characterized as a "tendency" to engage in a particular kind of behavior. In contrast, the trait generally is considered as the act itself. However, some psychologists consider a trait as an autonomous agent which may set certain modes of behavior in action. It should be sufficient for the time being to recognize that traits and attitudes are descriptions of categories which psychologists use to designate different modes of behavior. Neither is a fixed or irrevocable entity.

ALLPORT'S APPROACH TO THE ORGANIZATION OF PERSONALITY

There is not, at the present time, complete agreement with respect to the "principle-seeking" (*nomothetic*) purposes of science. As generally accepted in personality research the nomothetic position is one which seeks to establish from the many instances of behavior some more or less consistent relationships by which to describe conduct. However, Allport holds that such a position is a barrier to our comprehension of the real nature of personality; instead, he would look for his clues regarding personality in the basic features of the individual. Since it holds the individual to be primary, this view may be characterized as *idiographic*.

Allport's viewpoint is essentially a biological one. His definition of personality is based upon an operational view which is strong in its individualistic implications. His theory of the nature of personality indicates such a bias consistently. "The personality of an individual," Allport writes, "*is the mode of adjustment or survival that results from the interaction of his organic cravings (segmental drives) with an environment both friendly and hostile to these cravings, through the intermediation of a plastic and modifiable central nervous system.*"⁶ In expanding his theory of personality as a means of

⁵ M. S. Sherif and H. Cantril, *The Psychology of Ego Involvements*, New York: John Wiley & Sons, Inc., 1947, p. 17.

⁶ G. W. Allport, *Personality: A Psychological Interpretation*, New York: Henry Holt & Co., Inc., 1937, p. 114. The italics are Allport's.

adjustment Allport has focused his attention upon the dynamic behavior of the organism as it strives to maintain a balance in an environment which acts as a source of stimuli.

Thus conceived, personality is shorn of any implications other than those involved in the peculiar interaction of the individual organism with its environment. As a means of clarifying his conception of personality Allport has brought out three fundamental concepts of behavior, namely, *drive*, *trait*, and *functional autonomy*—three concepts related to one another and essential to an understanding of personality as Allport sees it. All three of these factors operate according to certain logical principles and are to be understood only in relation to these principles.

DRIVE

Allport considers drive (subdivided into various drives) to be a primary factor in need reduction. The drive, he writes "has its origin in an internal organic stimulus of peculiar persistence." It grows, he continues, "characteristically stronger until the organism acts in such a way as to alleviate the accumulating tension."⁷ Such a hypothesis of motivation obviously avoids the teleological implications of instinct theory, at least as McDougall propounded it. For in Allport's view drive is conceived as a need-reducing mechanism grounded in physiological processes, although it does not operate in response to specific stimuli. In this way the many variations of behavior seen in the individual are taken into account. The drive, according to Allport, does not explain all behavior; it serves as a logical description of certain kinds of "highly stirred-up states" in the individual.

In McDougall's doctrine of drive as instinct, behavior was ascribed to certain innate mental forces. The instinct of self-preservation, for example, purportedly explained egocentrism, greed, etc. Allport has chosen to centralize his concept of drive in specific acts. For him, drives constitute a logical explanation of infant behavior. Basic needs produce tensions within the child, who responds in his own way to reduce them.

Because of the adult's culturally derived added maturity, in adult life drives are characterized by such dimensions as *interest*, *value*,

⁷ *Ibid.*, p. 113.

trait, etc. The concept of drive originally accounts for the simple behavior of the child, whose movements are gross and undifferentiated. However, as the child grows, Allport sees these drives transformed into "distinctive motivational systems" capable in themselves of instigating new modes of behavior.

THE TRAIT SYSTEM

Allport defines trait as "*a generalized and focalized neuropsychic system (peculiar to the individual), with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent (equivalent) forms of adaptive and expressive behavior.*"⁸ Although such a definition attempts to avoid any metaphysical implications, it does not wholly succeed, since by implication at least it sets up a kind of dualistic interpretation of personality. By definition a trait implies a recognizable, or at least an existent, entity. The trait is intensely personal, emphasizing as it does the "real self." In addition, the trait apparently is capable of selectivity in the matter of external stimuli. Evidently through this "power" of selection the trait is in a position to set into motion behavior necessary for the survival of the organism. Because of previous considerations the trait, we may assume, is geared to the adjustment process and in that sense may be related to the autocorrective tendency of the individual.

Allport's theory does not include any "instinctive" behavior (e.g., combativeness, acquisitiveness, etc.). Instead it is his contention that since people vary so greatly in modes and purposes of existence, a few "primal motives" are glaringly inadequate as explanations of behavior. However, he does acknowledge that identity in behavior, where it occurs, is due to the fact that organized bodies of men are stamped by a "collective consciousness." In this respect contemporary anthropologists also hold the view that instinct is merely a convenient term for the accepted mores of a culture (Fig. 3).

It is not instinct, then, which determines an individual's behavior, but rather a common cultural heritage *which gives rise to certain traits*. As Allport sees it, instincts could more adequately be described as "constellations of emotion, habit and foresight, better called *sentiments* or *interests*, and regarded as acquired rather than innate. . . . And the fact that many of these purposes are fairly common

⁸ *Ibid.*, p. 295.

to mankind could be readily explained without recourse to a hypothesis of racial inheritance."⁹ If we accept such a view, i.e., that traits are instrumental in determining behavior, we must also accept the corollary assumption that learning not only modifies behavior but that it "creates" new modes (of behavior).

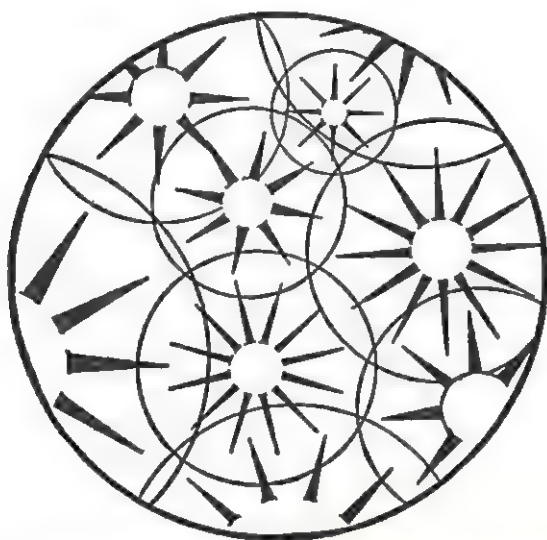


FIG. 3. THE TRAIT CONCEPTION OF A SINGLE PERSONALITY AS A SYSTEM OF FOCAL BUT INTERDEPENDENT SUBSTRUCTURES, THE UNITS BEING ESSENTIALLY DIFFERENT IN EVERY PERSONALITY. (FROM G. W. ALLPORT, *PERSONALITY: A PSYCHOLOGICAL INTERPRETATION*, NEW YORK: HENRY HOLT AND COMPANY, INC., 1937, P. 246.)

A drive instigates behavior in the child by way of certain regulative physiological principles. But drives are tempered through the years in the forge of a particular society. The drives (or traits) which result are independent systems and thus can be severed from the old, more infantile ones. Again Allport escapes the continuity of evolutionary behavior implied in the theory of instinct. Traits are *unitary* systems which are influential in determining behavior, but they are neither "outside" forces nor dependent upon a chain of other behavioral episodes.

⁹ *Ibid.*, p. 113.

FUNCTIONAL AUTONOMY

The trait, presumably a unique system, is accordingly not a category—not something dependent upon the observer—but “really there.”

Somehow in the process of maturing the manifold potentialities and dispositions of childhood coalesce into sharper, more distinctive motivational systems. *Pari passu* with their emergence these systems take upon themselves effective driving power, operating as mature, autonomous motives quite different in aim and in character from the motivational systems of juvenile years, and very different indeed from the crude organic tensions of infancy.¹⁰

Thus we have an explanation of the trait as a legitimate structure of personality which can, according to this author, provide us with insight into the dynamics of individual behavior.

Each person presumably is recognizable by his traits, which constitute the distinctive factors in the making of adjustments. These traits are indicated (influential) in every act of the individual. A soldier, for example, who has lived for many years under the rigid discipline exacted by military service behaves in virtually all situations—even when he has returned to civilian life—in harmony with this disciplinary training. Those who through the years have acquired the type of behavior subsumed under the general term “neatness” will evidence this behavior in virtually all situations.

Traits are, it follows, independent modes of behavior manifested in the framework of what we call personality. They have acquired motive force with which to set other modes of behavior in action. The “exhibitionist” seeks situations in which to project himself. The process of living in modern society calls for ceaseless adjustments, and traits are the individual’s answer to these demands.

Learning is central to these traits. Modes of behavior are influenced through social contacts. The process of adjustment, which modifies and extends individual purposes, is learning in its fullest sense. Traits are distinctly individual and therefore learning also is an individual affair. That which is learned cannot be measured by the usual modern quantitative methods. We must infer trait changes by a process of observation and logic. We are helped somewhat in our inferences by the fact that because of the numerous common environmental factors bearing upon them, many traits are “roughly comparable.”

¹⁰ *Ibid.*, p. 190.

Traits, if we are to believe Allport, while instrumental in regulating behavior, are not its sole determinants. Behavior—and here Allport appears to be following the Jamesian tradition—is not a mere series of successive acts, but a “*continuous flow . . . representing a converging mobilization of all energy available at the moment.*”¹¹ Allport feels that our meager knowledge does not admit of any sweeping generalizations about the physiological correlates of traits. He does, however, believe that there is sufficient evidence to defend defining the trait as a dynamic motivational system which functions autonomously in controlling both stimulus and response.

TRAITS, ATTITUDES, AND HABITS

Allport has compared his concept of trait with both attitude and habit. An attitude, he says, is similar to a trait in that both are forms of response readiness. Both are assumed to be the distinguishing activities by means of which each individual unmasks his personality to the outside world. An attitude, however, is more specific than a trait, and it is this specificity which is the crux of Allport's distinction. Although both trait and attitude are capable of acting alone, an attitude is the more direct in its reference, being geared toward some *particular* event or object. A trait is a more general form of behavior determinant. For example, an individual may have such a pronounced dislike (attitude) for a certain political issue that when it comes to voting or speaking about it he takes a firm stand, although his general approach to life is quite different, i.e., shy and retiring (trait).

Traits thus differ from attitudes in generality. They differ from habits in roughly the same way. A habit is a specific way of doing things, a way which for various reasons has become a regular feature of an individual's repertory of responses. Traits become generalized through experience. A person's whole way of life is a manifestation of traits, and habits in many instances arise from traits. For example, if a person is shy, he will habitually avoid joining different societies or clubs. It should be remembered, however, that both terms are constructs, viz., they merely are definitions of forms of behavior. As Schettler warns us,

complex personality traits are objective to the degree that private meanings are minimized and common meanings are established.

¹¹ *Ibid.*, p. 312.

The interrelations between the subjective and objective aspects of personality traits should determine the methods that will be employed. Methodology is a function of problems to be manipulated or solved and it is not necessarily more objective if it gives quantitative results. Exactness and accuracy in results are not always identical.¹²

HOW TRAITS FUNCTION

To comprehend the primary role of the trait in motivation more clearly, we will examine Allport's concept of function. For unless traits are explained in terms of function, it is difficult to see their value. We have noted that Allport asserts that traits not only spark drive but that they parcel out the stimuli which set the various drives in motion. This would appear to mean that traits are only indirectly dependent upon organic imbalance. In fact, Allport regards "motives as personalized systems of tensions, in which the core of the impulse is not to be divorced from the images, idea of goal, past experiences, capacities, and any style of conduct employed in obtaining the goal." He continues, "If biological drive plays a part (thirst, hunger, sex), it does so, not as *the* motive but merely as an irritable state of bodily tissues set within an intricate and personalized psychophysical system."¹³

By such statements Allport emphasizes his central theme that personality is the aggregate of the organism's interaction with its environment in terms of adjustment and survival. Thus traits function, although purportedly as independent systems, in relation to both internal and external stimuli. It is the complex of needs which motivates behavior. These needs affect traits in varying degrees and the traits in turn influence old forms of adjustment or create new ones. It is a kind of chain reaction in which traits act as the central agency in the direction of behavior.

Traits function according to "personalized systems of tensions" which set into motion an individual's entire repertory of behavior. The reacting personality is the process which represents the individual's adjustment; it is the aggregate of his behavior as this behavior is instigated by need. Each individual possesses his own "particular pattern" of needs which operates to shape his future responses.

¹² C. Schettler, "Objective Measurement of Personality Traits," *Journal of Personality*, 1946-47, 15:292-299.

¹³ G. W. Allport, *op. cit.*, p. 320.

Traits thus function (1) in proportion to need and (2) in motivating behavior.

External stimuli are not sufficient to set traits into operation. This operation requires an integration of both stimuli and physiological reactions ("irritable state of bodily tissue"). However, once the traits are operating, they can act as motivating agents themselves. Thus traits are *autonomic functional systems*, as Allport writes, dependent upon the circumstances of stimuli and response—in terms of a particular need—which affect the organism's efforts to adjust to the forces playing upon it.

A REVIEW

In Allport's theory of trait systems we see an answer to the perplexing problem of individuality. Allport's hypothesis accounts for the individual through an operative structure which sees personality as that which really represents each person. There exists a unique "I" which is recognizable through the externally and internally induced modes of adjustment which Allport calls traits. In such a theory one is not beset at every turn with the "exceptions" of personality, because these exceptions are the rule. To avoid the eventual question of how to formulate some principles out of the infinite combination of traits Allport concedes that owing to a common environment, there are in evidence in mankind roughly similar modes of adjustment.

Traits are functionally autonomous, so much so that they can serve as instigating agents. Men behave in certain ways because their various needs impel them to such action. Men who are deprived of food act in ways designed to reduce this deprivation, i.e., to restore balance, but different environments bring about different ways of satisfying needs. For example, not only do the Scandinavian countries depend upon fish as a staple of existence, but because of this situation many customs have grown up around fish with respect to its preparation, eating, etc. In countries where sea food rarely is seen, there are entirely different social mores connected with eating. In short, a particular food available to a society is expanded into modes of adjustment forced upon the members of that society.

Allport has not wholly resolved the problem of individuality. To assert that personality is varied is far from describing or explaining from where this variation emerges and how it is to be controlled.

Many psychologists today hold that certain generalizations must be made with respect to personality if we are not to be submerged under endless individual instances. We cannot understand personality without some established principles designed to guide such understanding. Allport has great faith in man's ability to *infer* from many instances of behavior the personality traits which they represent. This procedure in a way is a replica of the inductive method of science. He sees traits as consistent, and consistency, as Bacon pointed out many centuries ago, is a key principle of science.

Since Allport sees traits as "generalized response units," his theory has been called "unitary." Some students of personality reject this unitary view because it virtually forces one to accept the corollary view that behavior subsumed under a trait name is consistent without regard to the details of the external and stimulating situations. Accordingly, a timid individual would be frightened on virtually every occasion involving any anxiety. Many of the feats of valor performed under battle conditions, however, have indicated that so-called timid men under certain circumstances respond in a manner which is expected only of those who are said to be brave. An honest man would be expected to be honest in all situations but those marked by severe conflict. Exceptions to such uniformity of behavior are numerous.

THE DOCTRINE OF SPECIFIC TRAITS

Some psychologists believe that there are no inner (psychophysical) behavioral tendencies; instead, they maintain, traits represent behavior which draws its impetus and patternality from specific stimulating situations. They look upon personality traits as mere groupings of *specific* tendencies to behave in characteristic ways—tendencies which have been learned. "The whole of human behavior as we know it . . . is either learned or modified by learning, and learning is, in large measure, an interpersonal process," writes Bateson. "The contexts in which it occurs vary from culture to culture, as also do the methods of reinforcement. Thus, not only *what* is learned is in some measure culturally determined, but also the role of the learned behavior in the psychic life of the individual."¹⁴

¹⁴ G. Bateson, "Cultural Determinants of Personality," in J. McV. Hunt (Ed.), *Personality and the Behavior Disorders*, New York: The Ronald Press Company, 1944, Vol. II, pp. 732-733.

Because many psychologists are skeptical of the concept of innateness or *inner forces* as affecting behavior, the theory of unitary traits has come under considerable attack. When viewed in terms of learned behavior, trait names are convenient labels for the classification of specific actions which can be rated only in terms of the values assigned them by the individuals doing the rating. Thus traits are not so much an individual's own possessions as they are *desirable or undesirable behavior patterns according to the criteria of various raters*. This definition provides at least a tentative answer to the question of the apparent inconsistency of human behavior. A man may be kind to his wife and children and yet show little or no mercy in his business dealings. A young man may be truthful with his parents and yet lie unabashedly to his instructor at school. Such diversification in behavior indicates how fundamental to the individual's sense of security a specific situation really is. "There is now general consensus that children's personality development and behavior are determined not only by the things that are done to them," writes Kanner with respect to the determinants of behavior, "but also, sometimes directly and sometimes more indirectly, by the personalities and attitudes of the people around them. In fact the very presence of . . . a classroom creates a situation to which the others react in a variety of ways which in turn reflect on the child's own responses."¹⁵

THE PROBLEM OF CHARACTER

Many laymen still believe that character—ethical conduct—is the distinguishing feature of personality. Truthfulness, goodness, loyalty, and like attributes are assumed to be the fundamental traits. For those who accept the *philosophia perennis* (the thinking that reaches us from Greek and medieval philosophers), character traits are based upon universal moral concepts. They hold that an individual is not fair or honest only under certain conditions (as the relative moralist proposes), but behaves in harmony with these traits no matter what the situation. In effect, this view assumes that certain so-called virtues (e.g., honesty, loyalty, sympathy) are universal and self-evident.

A companion view holds that each human possesses a so-called

¹⁵ Leo Kanner, "Behavior Disorders in Children," in J. McV. Hunt, *op. cit.*, Vol. II, pp. 773-774.

conscience or guide to conduct. It is inevitable that a child will see the desirability of the enduring virtues and act accordingly. Sunday school classes and like organizations are founded upon this belief. It is assumed that through such training characters can be improved and the individual brought to the point where he will conform to the dictates of his conscience.

THE CHARACTER EDUCATION INQUIRY¹⁶

To test the related character traits of truthfulness and honesty Professors Hartshorne and May, in their work for the Character Education Inquiry, carried out an extensive investigation of the behavior of some 10,000 children. The research emphasis was upon bringing about such behavior as could be designated honest, self-controlled, and of service to others (or the opposites). The investigators discovered that no matter what their background, the children studied were truthful only in certain situations depending upon their sense of security in these situations. Truthfulness and honesty did not represent consistent categories of behavior. Very few children were dishonest in all situations, and more than seven per cent were truthful and honest in all of the test situations.

The test situations were designed to include opportunities for cheating in examinations, for keeping small amounts of money found in boxes used in games, for falsifying athletic records, for peeking in games involving a blindfold, and for deceiving on tests of muscular coordination. The test situations were so structured that the subjects did not know they were being tested.

Proceeding on the hypothesis that the amount and character of deceptive behavior might be functions of the specific situations in which they occurred, the investigators revealed (after five years) that no thoroughly consistent behavior was manifested by any of the children. No child cheated at all times, and too few were honest in every situation to warrant any definite conclusions as to the nature of honesty. A child who falsified his score in an athletic event did not necessarily retain money which did not belong to him. The incidence of honest and deceitful responses varied in such proportion

¹⁶ Hugh Hartshorne and M. A. May, *Studies in Deceit* (1928); *Studies in Service and Self-Control* (1929); and *Studies in the Organization of Character* (1930); all published by The Macmillan Company, New York.

that no trait of honesty per se could be detected. The results indicate that behavior cannot be subsumed under categories of trait names. It would appear, instead, that behavior, at least on the part of children, is in large measure a function of specific situations and their import for the individual's psychological integrity.

In interpreting their data the authors of the Inquiry suggested that deception is a symptom of social friction in which a conflict between personal desires or needs and the prohibitions of society takes places. When a child cheats in an examination, instead of conforming with some innate drive toward deception, he may be seeking the approbation of his teacher and classmates. Thus an act of dishonesty may be an autocorrective measure of a momentary nature through which the child seeks to maintain status in his home or school. Hartshorne and May summed up the study by affirming the importance of the specific conditions under which behavior takes place. A child, they wrote, "behaves similarly in difficult situations in proportion as those situations are alike . . . and are comprehended as opportunities for deception or honesty."¹⁷

CRITICISM OF THE CHARACTER INQUIRY

If the Hartshorne and May findings could be said to have general application, the very concept of personality traits was in danger. If behavior is a matter of specific responses dictated by particular stimulating conditions the hypothesis of the autonomy of traits is untenable. Being thus challenged, trait psychologists were not slow to criticize the findings of the Character Education Inquiry. Allport,¹⁸ for example, went as far as to maintain that the findings not only did not invalidate the trait theory, but actually confirmed it. His arguments may be summed up as follows:

1. *Axiomatic Congruence.* The low relationships found among test results would indicate that while children may be inconsistent in terms of individual response, *they are not thereby inconsistent within themselves.* It may merely be that in a specific situation one trait has taken precedence over another. Stealing may only mean a situational supersedence of some pressing need (for example, loyalty) over honesty. Thus considered, the concept of general traits is not vio-

¹⁷ Hugh Hartshorne and M. A. May, *Studies in Deceit*, p. 185.

¹⁸ G. W. Allport, *op. cit.*, pp. 250-258.

lated; instead, a conflict has arisen in which behavior marked by dishonesty superseded another trait for the moment.

2. *The Social and Ethical Aspects.* Morality (as expressed in honesty) is founded upon certain universal categories ("good" and "bad," "right" and "wrong"). Any studies based upon these concepts are faced with arbitrary criteria, criteria which force the use of arbitrary

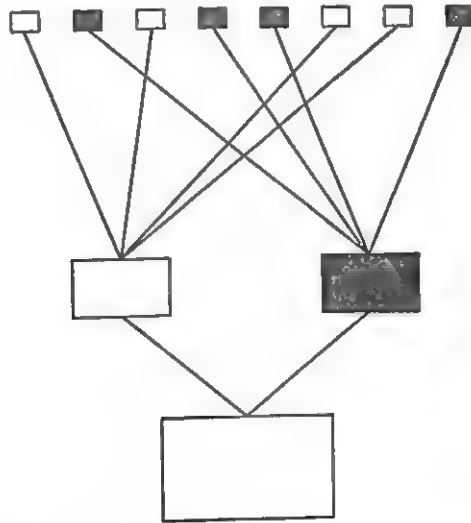


FIG. 4. AN ILLUSTRATION OF CONGRUENCE. THE UNITY OF PERSONALITY BECOMES APPARENT AS MORE BASIC DYNAMIC SYSTEMS ARE SOUGHT. (FROM G. W. ALLPORT, *PERSONALITY: A PSYCHOLOGICAL INTERPRETATION*, NEW YORK: HENRY HOLT AND COMPANY, INC., 1937, P. 357.)

ratings. Personality traits may be consistent despite the failure of the young individual to score high in certain situations. Children may have had insufficient time to become aware of the moral standards accepted as desirable by our society, and may thus respond to specific situations on a morally immature basis.

3. *The Method of Investigation.* It was not the subjects' psychological nature but the method by which the study was conducted that determined its results. The use of mass data for so many subjects of preadolescent age tended to bring out behavior characterized by specificity. Had the study been more intensive, utilizing fewer and

more mature subjects, it is likely that considerable consistency of behavior would have resulted.¹⁹

4. *Failure of the Study to Reveal Underlying Traits.* The findings may have revealed that specific behavior is dependent upon the deeper facts of personality organization. Despite the theory of specificity we do characterize our friends by such general trait words as honest, loyal, kind, and the like. Individual acts do not greatly influence our well-established opinion of our friends' qualities.

The author of these criticisms regards the behavior called inconsistent or specific by the Character Education Inquiry investigators as *autocorrective*. It represents defensive reactions to frustrations or insecurity which enable children to maintain their psychological integrity. Even the authors of the Inquiry wrote: "There is nothing in what we have found that makes a higher and more useful integration of conduct impossible. There are no known limits for individuals. Lack of intelligence is not a handicap to growth in such integration as children now possess, and some are fairly well organized."²⁰

If we accept this view, it follows that specificity of behavior is due to the exacting demands of society's moral codes. To conform, the child is forced gradually to behave in widely different situations in ways which square with adult moral requirements, but which in some instances lead to feelings of insecurity or inadequacy on the part of the child.

COMPROMISE VIEW OF THE NATURE OF TRAITS

The debate concerning traits appears to center in the relative significance of specific stimulating situations and previously developed dispositions to behave in particular ways. Tuttle, for example, believes that specific situations can be used to develop traits. He writes, ". . . condition the child in particular acts; help him to discover common meanings in classes of acts; lead him to see that all the acts

¹⁹ Kemper found that such consistency increased with each level of high-school instruction, and from other studies there is evidence that the more mature youths tend to behave in harmony with social and moral standards of their culture. This may, however, only be an indication of the experiences they have undergone. H. D. Kemper, "Cheating Among High School Students" (Doctoral Dissertation, University of Iowa, 1931).

²⁰ Hugh Hartshorne and M. A. May, *Studies in the Organization of Character*, p. 359.

of a certain class really belong together; give a name to the total concept. A trait will emerge."²¹ Murphy, however, who favors the "specific situation" view, counters by declaring that "we can't even understand the instability, confusion, inchoateness and lack of determination that exists in any given moment, unless we recognize frankly that personality expresses the current demands upon the individual. In other words, there is no 'personality' at this moment, except in the sense of an interaction of individual and world."²²

Traits may be neither wholly specialized nor entirely unitary, but may tend to become generalized as the child accumulates meaningful experiences. A child's response in any given instance is probably influenced by many factors, e.g., his status at the time, the circumstances which surround him, his physical condition.

A trait may be regarded as a recognizable form of behavior dependent upon both the state of the organism and the specifications of the situation. As children develop, their behavior patterns become more fixed. And as they become more aware of adult moral standards their behavior probably tends to become modified in favor of increasing conformance. To think of traits as independent entities loses sight of the real problem, which is an understanding of the organization of personality. As Bidney states, "Personality is an attribute of persons; it is a property which is the product of sociocultural participation and recognition. Personality refers to the form or structure of a person and hence implies the prior existence of a person. Only persons are the agents or patients of the cultural process."²³

To emphasize traits as being general is to minimize the role of experience and man's surroundings. However, to consider all behavior as specific is to ignore the factors of individuality and the uniqueness of personality. A person has his own characteristic way of responding to the same situation a second time. *A trait probably involves both the organization of the individual and the nature of a given situation.*

²¹ H. S. Tuttle, *Dynamic Psychology and Conduct*, New York: Harper & Brothers, 1949, p. 211.

²² Gardner Murphy, "The Relationships of Culture and Personality," in S. S. Sargent and M. W. Smith (Eds.), *Culture and Personality*, New York: The Viking Fund, 1949, pp. 14-15.

²³ D. Bidney, "Towards a Psychocultural Definition of the Concept of Personality," in S. S. Sargent and M. W. Smith, *op. cit.*, p. 49.

FURTHER CONSIDERATIONS CONCERNING TRAITS

It may well be that there is a difference between traits involving morality and those which are purely social in nature (e.g., dominance-submission or introversion-extroversion). Moral standards force the manifestation of certain types of behavior. Although there is a prohibition on stealing, desperation may be so overwhelming that the individual ignores the ethical mandate and may even justify his dereliction. Social dictates are, in their own way, as rigid as moral ones, but they involve different criteria. For example, success is sometimes admired even when it has been obtained unethically. This clash between the conventions of society and the dictates of moral codes may have confused the trait issue. An individual may be adjudged honest in his business transactions, but fall short of satisfying moral law. It is difficult to reconcile the training of a soldier with the injunction that he must not kill.

It would seem, then, to be the part of wisdom to make a distinction among traits, just as the pioneer psychologist Binet did in recognizing intellectual traits as possessing distinctive characteristics. A *character* trait may contain certain properties of its own—properties which must be considered in relation to the total process of personality.

No matter how elaborate their designation, all traits are psychological constructs. What is honest in the eyes of one individual may be dishonest in another's eyes. Unless we adhere to universal standards—and even these are always interpreted according to the individual's criteria—definitions of a trait must be subjective and relative. The Indian Brahmin does not accept many of the practices of Western civilization, practices by which we judge one another. Conversely, Western man sees little point in seeking *nirvana*.

Children and youths differ considerably in the extent to which they are able to achieve consistency of behavior as judged by group standards. Conformity in conduct is associated with such factors as family life, socioeconomic status, and standards of companionship. As Sapirstein says, "If a child is conditioned early in life to certain techniques of adaptation which are completely unsuitable for adult life, he is bound to run into difficulty. . . . Such an individual will have all the difficulties in adjusting to our society that an Eskimo would have if transplanted to a tropical climate and asked to earn a livelihood."²⁴

²⁴ M. R. Sapirstein, *Emotional Security*, New York: Crown Publishers, 1948, pp. 16-17.

Behavior is affected not only by a given situation but by previous situations as well. The impact of his culture upon the individual's status must affect the development of given traits.

The differences between the "specificity" view and the "general" or unitary view of personality trait organization thus may be more imaginary than real. Children are not sufficiently sophisticated to organize their responses in harmony with conventional moral standards. However, as they grow older and become oriented by experience to the demands of social sanctions, their behavior, under adequate home and school conditions, may gradually become more and more consolidated until many reach the point where their behavior approximates, from the social point of view, the unitary trait doctrine of consistency. At least in the realm of ethical behavior, degree of consistency in conduct may be a function of chronological age coupled with social and emotional maturity.

In addition to the normal cultural factors which influence the formation of traits, there are those associated with traumatic conditions. The individual who can no longer see develops patterns of behavior involving the more extensive use of his other senses. The crippled person seeks out situations which are not too demanding of his resources. All of these considerations point to the desirability of considering personality as a "total process." Further investigations no doubt will throw more light upon this issue.

GENESIS AND DEVELOPMENT OF PERSONALITY TRAITS

It is generally accepted that at birth the infant's personality is essentially "nondescript," and that it will develop as determined by the character of the stimulus patterns which surround him early in life. If it can be said that the psychological life of the infant is subject to laws of development and that its directions of growth are influenced by cultural pressures, it follows that personality traits are primarily products of responses to people and to social situations. After an extensive investigation of young children's projective play activities, Lerner and Murphy wrote, "the unconscious organization of experience by the child, and his personality structure, is the result of the impact on him of all the conscious and unconscious expressions of parents' personalities, as well as their conscious attitudes

toward children and their bringing-up."²⁵ Whether the child will become "a genial, satisfied, constructive citizen making good use of whatever resources his world offers him; or a tense, anxious, uncertain man compulsively trying to hold on to whatever success he has gained so far" is believed to be rooted in early home experience.

Reynolds studied the phenomenon of negativism in young children and found that it developed among those who consistently were ignored or whose preferred forms of play and other activities frequently were denied expression.²⁶ Such negativism was believed to be the result of hostility or of feelings of inferiority from which the children sought to escape by adopting an attitude of excessive autonomy. If this be the case, negativism provides an illustration of the genesis of a trait not present in the infant's original "nondescript" personality. The same may be said of jealousy, which Sewell found frequently associated with the arrival in the family of a new baby.²⁷ When ignored or neglected in favor of a younger sibling, many of the children concerned resented the newcomer. In some instances the supplanted children, although formerly satisfactorily adjusted to their family groups, manifested observable changes in personality in which shyness, timidity, daydreaming, or negativism appeared. It seemed evident that the changes in behavior resulted from loss of parental preferment.

A number of investigations have suggested that socioeconomic status, including physical facilities, recreational equipment, intelligence of parents, and occupational rating of the father, has little bearing on the direction of a child's personality development.²⁸ The primary factors in personality maladjustment seem to be frustration or overindulgence of the child's need for parental affection and sympathetic handling. The young child's social environment registers its impact principally through the channel of parental attitudes and actions. Even the infant may, if continually waited on and fondled

²⁵ Eugene Lerner and L. B. Murphy, *Methods for the Study of Personality in Young Children*, Monographs of the Society for Research in Child Development, Vol. 6, No. 4 (1941), pp. 3-8.

²⁶ N. M. Reynolds, *Negativism of Preschool Children*, New York: Teachers College Contributions to Education, No. 299, Columbia University, 1928.

²⁷ M. Sewell, "Some Causes of Jealousy in Young Children," *Smith College Studies in Social Work*, 1930, 1:6-22.

²⁸ See, for example, C. K. A. Wang, "The Significance of Early Personal History for Certain Personality Traits," *American Journal of Psychology*, 1932, 44:768-774; also Kenneth V. Francis, "A Study of the Means of Influence of Socio-economic Factors upon the Personality of Children," *Journal of Juvenile Research*, 1933, 17:70-77.

whenever he desires attention, come to expect such satisfactions and to register considerable resentment or hostility when refused their fulfillment. He may also develop, if he is treated roughly or frustrated too frequently, a state of hypertension which is damaging to digestion and sleep and later to personality adjustment.

Parental treatment, experiences leading to conditioned reactions, and in some instances organic ailments can modify personality traits to a considerable extent. Such contrasted tendencies as dominance or submission, sympathy or cruelty, cooperativeness or negativism, and emotional stability or irritability are "transmitted" from parents to children. Since infantile traits often carry over into adult life and make their effects felt long after the causes of their appearance have been forgotten, *social* heritage evidently is a primary source of personality traits. Apparently these tendencies to behave—traits—develop in the flexible psychological life of the infant and child as a result of the patterns of stimulation provided by the home and other cultural influences.

THE COURSE OF TRAIT DEVELOPMENT

The traditional method of engendering socially desirable traits, no matter how defined, has been that of firm verbal exhortation. Children sometimes respond to such teachings, apparently accepting the criteria of behavior involved. Nevertheless, as Charters has pointed out, such purposes will not necessarily result in desirable behavior because behavior is *concrete* and *specific* whereas purposes are *abstract* and *general*.²⁹ Furthermore, exhortations are not generally expressed at a time and place associated with the concrete situations in which the child's basic needs are involved and in which he is called upon to make an adjustment.

As Charters has written, "One does not act honestly in general; he performs a thousand specific acts of honesty. He tells the truth about the sharpened tool he ruined, about the dime he lost, or about the window that he broke in play."³⁰ A child would eventually become characteristically honest (or obedient, loyal, tolerant) only after multiplying into scores concrete acts involving honesty in which such behavior was reinforced by being made *satisfying*. Such an

²⁹ W. W. Charters, *The Teaching of Ideals*, New York: The Macmillan Company, 1927, pp. 105-106.

³⁰ *Ibid.*

approach to the development of either character or personality traits is a far cry from the older methods of wishing for them, learning to repeat rules concerning them, listening to glowing stories in which they were exemplified, or depending on the alleged regulating value of intellectual factors.³¹

Many students of personality believe that the stimulating situation is the fundamental unit of trait action and the nucleus from which the earliest actions arise and around which consolidation of behavior (formation of traits) takes place. Children must be stimulated to make specific trait response in many concrete situations. Only as a child grows older and acquires a large number of specific trait actions can he hope to apply rationally analyzed principles of conduct. In the meantime the appropriate responses must be elicited by arranging situations in which the child will more or less spontaneously do the "right" things because they are made satisfying. Desirable trait development thus involves the presence of a social environment in which intelligent supervision of a considerable share of the child's experience is possible.

PROCEDURES IN GUIDING THE DEVELOPMENT OF TRAITS

The procedures involved in the development of the trait of sympathy have been presented by Ragsdale, with the stipulation that such training includes (1) the recognition by the child of many concrete situations in which behavior exemplifying both desirable and appropriate forms of sympathy is manifested, and (2) specific experience in *types of action* which are recognized as embodying sympathy.³² To be amenable to satisfactory development involving social cooperation the child should (1) be provided with a sense of security and well-being based upon adequate acceptance by his family, (2) live in an environment in which sympathetic behavior is exemplified by those about him, and (3) enjoy satisfying social experience with other children. The development of traits is apparently dependent upon concrete responses made in a wide variety of social settings and under conditions conducive to both appropriate behavior and satisfactory reinforcement.

³¹ R. Nevitt Sanford *et al.*, *Physique, Personality, and Scholarship*, Monographs of the Society for Research in Child Development, Vol. 8, No. 1, 1943, pp. 503-506.

³² Clarence E. Ragsdale, *Modern Psychologies and Education*, New York: The Macmillan Company, 1932, pp. 346-352.

TRAITS AND CONSISTENCY OF BEHAVIOR

As a result of their work with the Character Education Inquiry, Hartshorne and May concluded that so far as moral traits are concerned, conduct under appropriate conditions gradually becomes more consistent, especially as the child comes to organize his behavior in relation to governing principles and as social customs are understood and accepted.³³ Complete consistency, in the sense of always conforming to social dictates or desirable personality patterns, is apparently never reached, but under optimum circumstances may become highly developed. As social codes become accepted and crystallize into dispositions to behave in specific ways (habits), these habits become influences for determining *type of behavior in new situations*.

Such consistency of response is greatly abetted if in the course of varied experiences the moral and other involvements of various situations encountered by a child are explained to him. If the common elements of situations involving, for example, honesty or loyalty are pointed out, and if the possibilities of applying specific trait actions (e.g., returning money belonging to another, telling the truth about one's accomplishments, being faithful to friends) to a number of concrete situations are adequately shown, the child will probably come to generalize his experiences in harmony with moral requirements.

FACTOR ANALYSIS AND DIMENSIONS OF PERSONALITY

Factor analysis³⁴ is a method which aims at determining, for example, precisely which personality characteristics emerge from given physiological or environmental determinants. It grew out of the revolt against generalizations in the description of personality. Gall's twenty-seven determinate faculties which he believed accounted for individual differences are considered the forerunners of factor anal-

³³ Hugh Hartshorne and M. A. May, *Studies in the Organization of Character*, pp. 357-359. See also Robert S. McElhinney and Henry L. Smith, *Personality and Character Building*, Winona Lake, Ind.: Light and Life Press, 1942, Chap. 10.

³⁴ Tyler has written that factor-analysis methods have been developed in response to the need for isolating enough factors which generally are accepted as components of personality. "All of them [factor-analysis methods] are based on the correlations between scores on different tests" (L. E. Tyler, *Psychology of Human Differences*, New York: Appleton-Century-Crofts, Inc., 1947, pp. 359-360).

ysis. His scheme of faculties was empirically determined upon the basis of their individual independence.

One of the requirements of any discipline of science is the establishment of uniform relationships. The Renaissance systematizers, of whom Bacon seems to have been most prominent, enjoined us always to single out "instances" by which to establish these relationships. Modern methods of factor analysis operate in accordance with this dictum. As McKinnon writes: "The various methods of factor analysis have as their aim the discovery of the smallest number of independent factors or variables which will be adequate for the description and classification of traits. . . . The factor analyst subdivides his first crude qualitative classes until he has replaced them with quantitative grades."³⁵

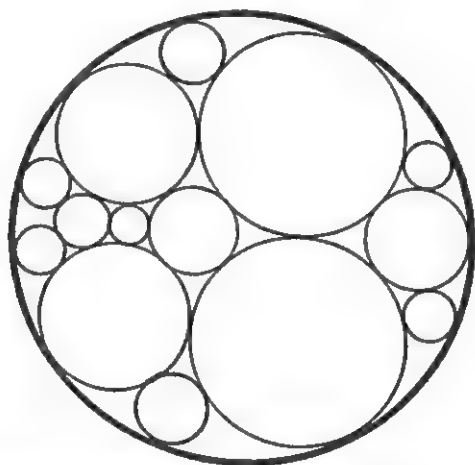


FIG. 5. THE FACTORIAL CONCEPTION OF THE DIMENSIONS OF PERSONALITY: A SYSTEM OF INDEPENDENT ELEMENTS, THE ELEMENTS BEING THE SAME IN DIFFERENT PERSONALITIES, THOUGH VARYING IN PROMINENCE. (FROM G. W. ALLPORT, *PERSONALITY: A PSYCHOLOGICAL INTERPRETATION*, NEW YORK: HENRY HOLT AND COMPANY, INC., 1937, P. 246.)

SOME PROBLEMS IN FACTOR ANALYSIS

However, several basic problems have arisen to hamper factor analysis. These may be stated as follows: (1) What constitutes a factor?

³⁵ D. W. MacKinnon, "The Structure of Personality," in J. McV. Hunt, *op. cit.*, Vol. I, p. 30.

(2) How many kinds of factors exist? (3) If a factor can be isolated, is it subject to measurement?

Some psychologists have criticized factor analysis on the basis of its obvious bias. That is, the factors extracted depend upon the particular items included in the original tests, rating scales, or questionnaires. The factors extracted from the analysis of the intercorrelations of test scores or ratings will be subject to the same errors as are parts of the tests or ratings. Other students of the subject believe that in view of contradictory evidence from biology and psychology, personality cannot be reduced to a given number of factors.

Nevertheless, the factorial conception of personality has been preferred by a number of psychologists on the ground that it is a more logical and more vigorous approach than either the theoretical or the dimensional views. Guilford and Zimmerman,³⁶ for example, have developed a temperament survey on the basis of factor-analysis studies of items in four previously published questionnaires dealing with a variety of aspects of personality. These authors believe that the ten factors in their survey are sufficient to furnish "comprehensive pictures of individual personalities." According to Guilford, factor analysis is an effective means of ascertaining the organization of personality as long as we are precise in our methods. As he writes, "In the selection of experimental variables, it is important to take into account all variances in known factors . . . it becomes necessary to put in the batter a good measure or two for each such factor. This not only identifies the factor but also segregates its variance so that

³⁶ J. P. Guilford and W. S. Zimmerman, the *Guilford-Zimmerman Temperament Survey* (Beverly Hills, Calif.: Sheridan Supply Co., 1949). The previous inventories upon which this instrument is based are the *Nebraska Personality Inventory* (SEM), *The Inventory of Factors S T D C R*, the *Personnel Inventory* (O A G Co.), and the *Inventory of Factors G A M I N*. Guilford's *Inventory of Factors S T D C R* is an instrument based on items with a high degree of factor communality derived from studies with control groups. These five factors, according to him, "encompass the area of personality traditionally known as introversion-extroversion." The factors involved are described as S—social introversion, as exhibited in shyness and tendencies to withdraw from social functions; T—thinking introversion, or an inclination toward meditative thinking, philosophizing, and analyzing oneself and others; D—depression, including feelings of unworthiness and guilt; C—cycloid tendencies, as shown in strong emotional reactions, fluctuations in mood, and tendencies toward flightiness or instability; and R—rhythymia, or happy-go-lucky, carefree disposition, including liveliness and impulsiveness. These factors are not, however, offered as representing inflexible types. They involve, rather, five continuums, from one extreme to the other of five aspects of introversion-extroversion.

it does not muddy the waters with respect to the rest of the factor structure." ³⁷

Accounting for personality in terms as precise as possible is praiseworthy, but we must guard against accepting factors as existent realities. A single factor, or even an integrated pattern assumed as arising from a number of factors, does not explain personality; factors are only names given to attributes which the observer gives to personality. Nevertheless, factor analysis represents a mathematical appraisal of personality brought to fruition, and it does attempt to localize the problem. In fact, one student of personality has asserted that "if . . . we would construct a science of personality, we must seek for abstract models, concepts, mathematical functions, or what have you, which will adequately represent our knowledge—meagre though it be—of existing facts, and which at the same time will point forward to new facts which can verify, modify, or refute our theoretical model. What are the main facts regarding personality which must be incorporated in such a model. I believe that a rough and ready answer at least can be given . . . and that this answer must be phrased in terms of factorial analysis." ³⁸

THEORETICAL DIMENSIONS OF PERSONALITY

Some psychologists have thought that traits are too narrowly conceived and have sought to construct a more integrated view of personality. Their concepts emphasize purposive striving, needs, socio-cultural factors, dynamic balance, and perhaps most important of all, a patterned organization of personality.

The twofold question which arises from a dimensional theory of personality is: (1) Is a dimension of personality a valid construct, that is, does it actually represent a fundamental principle of personality regulation? Or (2) can only certain aspects of personality be described in terms of the observer? If personality as a total process is to be understood, it follows that its dimensions must be sufficiently broad to encompass its basic components. If, however, we assume that only single aspects of personality are open to inspection, then

³⁷ J. P. Guilford, "When Not to Factor Analyse," *Psychological Bulletin*, 1952, 49: 26-37.

³⁸ H. J. Eysenck, "The Organization of Personality," *Journal of Personality*, 1951-52, 20:101-117.

dimensions must be outlined against a background composed of the different traits possessed by each individual. In short, a dimension may be considered either as a concept representing the actual structure (or its governing principles) of personality, or as a measurement or description of the various aspects of personality.

The dimensional theorist seeks a basic "unit" with which to describe personality, albeit such a unit as will be adequate to include both the genetic and environmental factors involved. For as Duffy says,

Studies of the effects of genetic and of environmental factors upon behavior are handicapped unless behavior is described in terms which represent functional unities, since only such constructs are likely to bear any direct relationship to genetic and to environmental units. The issue is not merely one of terminology, but rather one of *classification*, and hence of order in the conceptualization of phenomena. Such an issue is of basic importance, since the advancement of any science is dependent upon the adequacy of its organizing principles.³⁹

In the dimensional systems to be presented we shall see how various dimensions have been fitted into the organization of personality. These dimensions have as their principal purpose the inclusion either of general principles or the description of some facet of personality purporting to arise from it.

DIMENSIONS ACCORDING TO ANGIAL

One of the first students of the subject to employ the term dimension in connection with a theory of personality was Angyal. This writer believes personality organization has three general dimensions which might be considered as its fundamental constituents. Angyal described these dimensions as follows: (1) *The vertical dimension*: The items are so arranged along this dimension that one of them (the more superficial) is a concretization of the other (the deeper one). (2) *The dimension of progression*: The arrangement of items in this dimension forms a means-end organization. (3) *The transverse dimension*. The items of this dimension form a synergetic organization or coordination.⁴⁰

³⁹ E. Duffy, "A Systematic Framework for the Description of Personality," *Journal of Abnormal and Social Psychology*, 1949, 44:175-190.

⁴⁰ A. Angyal, *Foundations for a Science of Personality*, New York: The Commonwealth Fund, Division of Publications, 1941, p. 271.

Angyal is quick to add that, while the dimensions mentioned are basic to his theory, "It remains a question whether these dimensions define completely the domain for personality organization. . . ."⁴¹

If we accept Angyal's scheme we can see how personality develops layer upon layer as it accrues directly from the process of living itself. It would perhaps be of some help if we analyze each of the three dimensions.

The Vertical Dimension. According to Angyal, there may exist in the individual a general attitude which is a result of some past complex of experiences. Because of this general attitude the individual may express a hostile tendency toward certain people. Narrowing this tendency to the hatred of one person—even striking the object of hatred—is a manifestation of this asocial tendency. A child may, for example, remember with bitterness the overbearing manner and cruelty of a parent. In turn, he comes to regard with hostility individuals who resemble this parent. If an individual who resembles the parent comes in daily contact with the child, that individual becomes the focus of hostility which so far has been repressed.

The Dimension of Progression. In this dimension, Angyal attempts to account for the aggregate of activities which the individual manifests in his striving toward a specific goal. An ambitious person, for example, constantly appears to be moving toward some type of consummation (closure). In fact, all of us strive toward some objective, even if this be only the reduction of needs. The totality of this striving, as measured in terms of time, is the means-end organization.

The Transverse Dimension refers to integrated behavior at any moment of time or the momentary coordination of the organism-environment integration. This dimension is Angyal's means of deriving a "cross section" view of the individual. It is the lesser acts of our daily lives, as when we meet a friend or make progress in our daily tasks, which are revealed in this dimension. In this sense the transverse dimension may be applied anywhere along the vertical dimension. For example, our treatment of people at a given moment may be part of a general attitude which acts as the directional force of this particular bit of behavior. An attitude, as such, is difficult to detect. A number of unique ways of responding suggest the attitude of which these acts are a reflection. While one response may not

⁴¹ *Ibid.*

divulge this attitude, a sufficient number of consistent acts might very well do so.

Angyal's concept has integrated the physiological and psychological facets of the organism into a unitary process. For Angyal does not believe that the organism merely responds to the environment; instead, the organism and its environment compose a single source from which there emerges a two-pronged direction for the behavior of the individual. This integrated action of organism and environment Angyal has called the *biosphere*, a construct which regards personality as a function of both organismic and environmental forces. "The life process does not take place within the body alone, but includes the intrasomatic and extrasomatic happenings. Every process which results from the interplay of organismic autonomy or environmental heteronomy is a part of the life process, irrespective of whether it takes place within the body or outside of it."⁴²

In this unusual approach to the problem of personality each individual is capable of (1) developing his potentialities through control of his personal world, and (2) identifying himself with the environmental influences which make him the unique person he is. Personality is a function of an integrated process, i.e., the biosphere. The organism is autonomous, having the ability to expand through control of the environment. But the environment, too, exerts pressures which condition the organism as it operates in its particular sphere. Angyal's own illustration expresses the theory succinctly. He writes as follows: "A person wants to leave the house and is just reaching for his hat. The movement is composed of a number of coordinated muscle contractions (transverse dimension). This activity at the same time is a phase in a means-end organization (dimension of progression). Furthermore it is a concrete expression of some tendency of the organism which can be traced back to more and more general tendencies (vertical dimension)."⁴³

DIMENSIONS ACCORDING TO MASLOW

In Maslow's theory of self-actualization, a theory which places needs on a hierarchic foundation, the integrity of personality is taken for granted. Basic needs are expanded into ever "higher" levels, to which the individual responds *in toto*. As Maslow writes, "The most basic

⁴² *Ibid.*, p. 122.

⁴³ *Ibid.*, p. 270.

consequence of any satiation of any need is that this need is submergerd and a new and "higher" need emerges. Other consequences are epiphenomena of this fundamental fact."⁴⁴ Two broad dimensional aspects grow out of such a theory of personality—the theory of *syndromes* and the theory of *levels of magnification*.

The Theory of Syndromes. "A personality syndrome is . . . a structured, organized complex of apparently diverse specifications (behavior, thoughts, impulses to action, perceptions, etc.) which, however, when studied carefully and validly, are found to have a common unity which may be phrased variously as a similar dynamic 'meaning,' 'flavor,' function, purpose, or aim."⁴⁵ Thus the personality of the individual is characterized by this "complex of apparently diverse specificities." His every move reflects the personality syndrome. "As John Doe laughs and responds to a joke we theoretically trace out from the various determinants of this unitary act his security level, his self-esteem, his energy, his intelligence, etc."⁴⁶

Levels of Magnification. In an attempt at holistic analysis, Maslow has developed a kind of "fourth dimension," or "going into," of the personality syndrome, which he speaks of as *levels of magnification*. This process is likened to examining a physical object with the naked eye, then with a magnifying glass, and finally with increasingly powerful microscopes. Such a view provides a conceptual (theoretical) dimension which may or may not coincide with actual dimensions.

Magnification level I has reference to a general or moral survey of a personality syndrome as a whole, which provides its flavor, meaning, or aim. Magnification level II stands for the study of a subsyndrome in relation to the whole personality. Magnification levels III, IV, V, etc., continue the process of going deeper and deeper into the syndrome, like opening the boxes within boxes of a Chinese puzzle box. The level dimension thus might be considered a concentric dimension. Feelings of insecurity may be regarded as a subsyndrome or level III, upon which rests a level II subsyndrome need for power, which in turn is basic to a level I syndrome of race prejudice.

⁴⁴ A. H. Maslow, "Some Theoretical Consequences of Basic-Need Gratification," *Journal of Personality*, 1948, 16:402-416.

⁴⁵ A. H. Maslow, "Dynamics of Personality Organization, I, II," *Psychological Review*, 1943, 50:514-539.

⁴⁶ *Ibid.*

In some respects Maslow's concept of levels seems to provide a true "dimension" as a principle of measurement or of understanding. It tends to avoid the danger of defining the content of personality

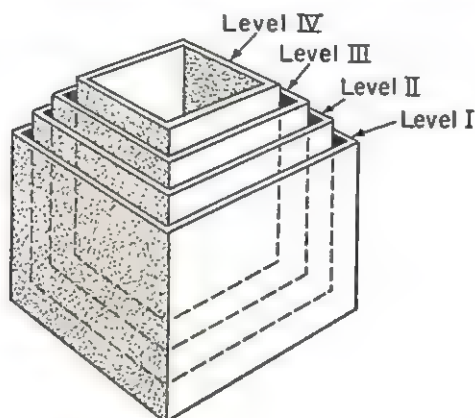


FIG. 6. A SCHEMATIC REPRESENTATION OF LEVELS OF MAGNIFICATION IN PERSONALITY.

structure and subsequently confusing it with the dimensional aspects. It also suggests that a single behavioral response probably is not determined wholly by a so-called trait.

DIMENSIONS ACCORDING TO MURRAY

Murray's conception of the dimensions⁴⁷ of personality may be considered in two parts—(1) his original proposal in 1938, and (2) in his later work with Kluckhohn and Mowrer.

Murray conceives of personality primarily as an organization of brain processes developed through past experience and interacting with the rest of the organism. The brain processes in question are not isolated; they operate as a phase of total adjustment, yet they control personality organization. The primary dimensions in Murray's system are *vertical* and *transverse*, and center in the concepts of *need*, *press*, *thema*, and *regnancy*.

Needs develop to a greater or lesser degree as the cumulative result of experience. They are based on original organic needs for food, water, rest, freedom from pain, and the like, and develop further on a social and cultural basis. Needs are the driving or motivating

⁴⁷ Henry A. Murray, *Explorations in Personality*, New York: Oxford University Press, 1938.

forces of the personality. Though it would seem that all individuals have similar needs, the relative importance of these needs varies so much among different cultures that the pattern of needs is unique for each person. This is true of such needs as those for status, prestige, and belongingness.

The *press* (alpha and beta) represents the environmental pressures which act upon the personality and upon which it acts. *Alpha press* refers to the environment as it actually is constituted by common agreement among observers. *Beta press* has reference to the world as the individual perceives it and as it appears to affect him. One individual may react almost wholly to concrete reality (alpha press), whereas another person may live to a considerable extent in a world of fantasy (beta press).

The *thema* is the combination of a particular need and a particular press. A thema is similar to a syndrome level, or to certain concepts of traits. Individuals tend to have relatively constant themas. A *unity thema* is defined as a dominant thema or allied group of themas. For example, feelings of inadequacy or of hostility may constitute themas.

A *regnancy* is a combination of themas which defines large areas of the personality. It is a kind of supersyndrome or, in a thoroughly integrated individual, may constitute the characteristic pattern of the whole personality. An individual may, for example, be markedly optimistic or characteristically pessimistic.

Any pattern of behavior is the result of an intricate combination of themas and regnancies. The dimension for describing such behavior must follow the developmental lines of the themas which control it.

DIMENSIONS ACCORDING TO MURRAY, KLUCKHOHN, AND MOWRER

It has been difficult to find Murray's concept of personality dimensions in his later writings and to differentiate it from those advanced by Mowrer and by Kluckhohn.⁴⁸ All three emphasize an aspect of personality which appears to have the quality of dimension—the cultural aspect, or the wider expanse of the environmental variable expressed in sociological-anthropological terms. They say, "Satisfac-

⁴⁸ Clyde Kluckhohn and Henry A. Murray "Personality Formation: the Determinants," in Clyde Kluckhohn and Henry A. Murray (Eds.), *Personality: In Nature, Society, and Culture*, New York: Alfred A. Knopf, Inc., 1953, Chap. 2.

tion involves a cultural as well as a constitutional determinant. The eating of grasshoppers (raw, or roasted) will not ordinarily reduce the hunger tension of an American. One must know the culture (as well as the individual's specific situation and life history) before one can hope to predict [how] a given tension . . . will be resolved. . . ." ⁴⁹

These three writers are more interested in personality development than they are in the structural descriptions of personality. Thus the developmental dimension is central in their writings. The personality is discussed in terms of four sets of determinants: *constitutional*, *group membership*, *role*, and *situational*. These determinants are dimensions of the "biosphere" and are regarded as being descriptive classifications. They are conceptual dimensions rather than structural dimensions.

The *constitutional* dimension has reference to the physiological makeup of an individual at any given time. The *group membership* dimension indicates that the individual belonging to any organized permanent group tends to manifest certain personality characteristics more consistently than do members of other such groups. The *role* dimension refers to the fact that the part an individual plays or the position he holds in a group is a significant determinant of his personality development. The *situational* dimension includes events which "just happen" to people one or more times, but which are influential in shaping their development.

Thus we have a view which is heavily weighted in favor of the cultural determination of personality.

DIMENSIONS ACCORDING TO MURPHY

Murphy has a tendency to accept a variety of views regarding the dimensions of personality and to be interested in many borderline problems.⁵⁰ Accepted are operational dynamics, psychoanalytic theory, cultural forces, situational events, and field analysis. Perhaps, in the present state of knowledge, this can be considered the "healthiest" approach to the problem.

He proposed three developmental stages which may be considered dimensional aspects of personality. "The stages comprise (1) a homogeneous, undifferentiated, global mass; (2) a differentiation, a cleav-

⁴⁹ *Ibid.*, p. 16.

⁵⁰ Gardner Murphy, *Personality: A Biosocial Approach to Origins and Structure*, New York: Harper & Brothers, 1947.

age between qualitatively distinct parts of ingredients; and (3) the establishment of functional relations between the differentiated parts so as to constitute a system."⁵¹ Three stages of organic and perceptual development are traced which also apply to the development of the personality as a whole. Although the three stages are primarily descriptions of personality development, they are dimensions of a sort in the adult personality structure. Stage I is represented in certain characteristics of the organism as a whole—an aspect of personality which is fundamental and perhaps constitutional. Stage II is represented by such universally recognized patterns of behavior as generosity, timidity, persistence, and confidence. Stage III relates to the characteristic "tone and balance" of the personality or the individual's idea of "self" as the total personality system.

For Murphy, then, personality involves two major dimensions: the developmental stage system (or vertical-concentric dimension) and the tension systems (or vertical-transverse dimensions). Further work is needed to clarify the actual structural dimensions within these two domains.

DIMENSIONS ACCORDING TO CATTELL

Cattell is not wholly sympathetic to the largely theoretical dimensions of personality presented in other systems.⁵² He believes that "a fruitful exploration of the origins and transformations of personality structure can proceed only on a foundation of correct description, classification, and measurement of personality manifestations existing at any given moment."⁵³

Cattell uses the term "dimension" to describe areas of measurement. It is intended to define a conceptual or logical unit rather than one dealing only with individuals. Aspects of measurement (explanation) are considered to be more than aspects of actual operation (understanding).

Cattell emphasizes the *unity* of the trait as a hypothetical substructure. This system of trait levels is similar to Murphy's or Maslow's and not very different from Angyal's vertical dimension. The surface of the personality sphere is described in terms of traits which can be observed as distinguishable behavioral patterns of action.

⁵¹ *Ibid.*, p. 619.

⁵² R. B. Cattell, *Description and Measurement of Personality*, Yonkers, N. Y.: World Book Company, 1946.

⁵³ *Ibid.*, p. 5.

Simple statistical measurement techniques will reveal these traits. Factor analysis and other clustering procedures can be made to reveal some of the next level of trait unities. Below that level, trait variables must, at our present stage of measurement, be inferred. Cattell postulates three types of psychologically "real" trait unities—(1) dynamic trait unities, (2) constitutional trait unities, and (3) environmental mold trait unities—and for some purposes (social) considers it useful to deal with logical trait unities.⁵⁴

These types of traits are found on three levels as shown in Figure 7. The first or deepest level is that of basic energies. These are called *dispositions*. The second level emerges from these dispositions and is defined as the sentiments level. The third level branches out even further and is defined as the level of *attitudes*. Above this level can be seen the behavioral traits on the surface of the personality sphere.

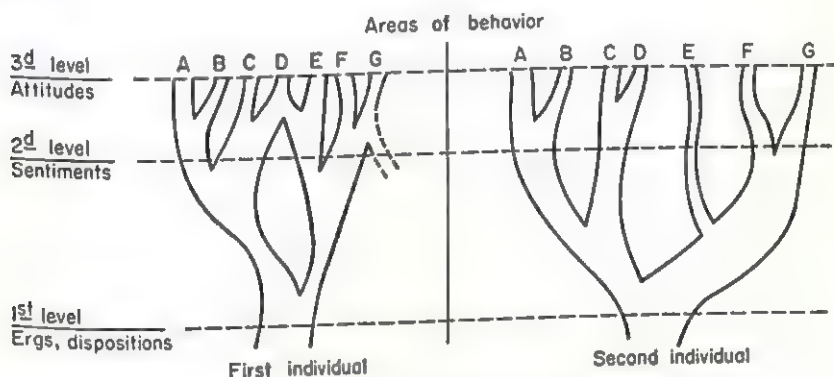


FIG. 7. DIMENSIONS OF PERSONALITY CONCEIVED AS LEVELS. (ADAPTED FROM R. B. CATTELL, DESCRIPTION AND MEASUREMENT OF PERSONALITY, YONKERS, N. Y.: WORLD BOOK COMPANY, 1946, P. 576.)

For example, the amount of sexuality would appear on the first (disposition) level, and an expanding development of modes of sexual direction and behavior on the second (sentimental) level. An increasing number of generalized tendencies to act in terms of sexual stimulation and habit would appear on the third (attitude) level. Beyond the third level (surface of the personality) the overt and measurable sexual reactions of the individual could be seen.

⁵⁴ *Ibid.*, Chap. 4. A trait is defined by Cattell as "a collection of reactions or responses bound by some kind of unity which permits the responses to be gathered under one term and treated in the same fashion for most purposes" (p. 61).

The traits established by Cattell as a result of his factor analysis studies are too extensive to be given here. Twelve primary source traits have been listed. Although it is possible that each of these traits constitutes an actual dimension of personality, it is probable that the complexities of personality structure require even more involved techniques than factor analysis if the actual facts of individualization are to be ascertained.

THE INTERPERSONAL DIMENSIONS OF PERSONALITY

A group of investigators⁵⁵ have recently designed a scheme of personality organization in terms of *interpersonal dimensions*. It is their contention that personality is best studied by measuring the various relationships which the individual maintains within his society. The authors have made only a preliminary outline of their proposed theory, which is based upon the assumption that man is a purposive animal and that this purposiveness is manifested in behavior which can be analyzed. To measure man's purposive behavior the authors have advanced the concept of an *interpersonal mechanism* which they define as an "interpersonal function of a unit of social behavior."

To augment their measurement the authors have divided personality into three broad areas or levels: (1) *public level*—the level of interpersonal interaction; (2) *conscious level*—the level of conscious description of the self and others; and (3) *private level*—the level of symbolic description of the self and others. Four criteria have been selected by which to develop and select the factors assumed to be operating within the different levels: systematic interrelatedness, interpersonal reference, encompassing of normal as well as abnormal functioning, and operational statements.

The data of the public level are systematized through the interpersonal mechanism. Sixteen interpersonal mechanisms have been derived and arranged in a circular continuum (e.g., Reject, Boast, Dominate, Teach, Give). To determine how an individual operates on the public level the observer must ascertain how the subject responds to other people—whether he tries to dominate the object or objects he encounters, teach them, boast about himself, etc.

The data of the conscious and the private levels are systematized

⁵⁵ M. B. Freedman, T. F. Leary, A. G. Ossari, and H. S. Coffey, "The Interpersonal Dimension of Personality," *Journal of Personality*, 1951, 20:143-161.

through an *interpersonal trait* which the authors have designated "as an attribute or adjective description of the potentialities of an individual for interpersonal action." These interpersonal traits are adjectively equal to the interpersonal mechanisms and may also be designed in the form of a circular continuum.

In a second paper concerned with the concept of interpersonal dimensions of personality the investigators experimented on the dimension of "repression" with approximately 100 subjects who suffered from one or more of such diseases as hypertension, ulcers, and colitis.⁵⁶ The authors conclude that the results of their study point up the importance of conscious self-perception in the clinical judgments of degrees of repressive tendency obtaining in a particular individual. It also is their belief that the interpersonal system they have advanced will provide a frame of reference for achieving clarity in the description of interpersonal correlation of the repression process.

CONCLUSION CONCERNING DIMENSIONS OF PERSONALITY

Most of the views regarding the organization of personality discussed can be grouped under a dimensional concept which includes (1) the vertical-developmental dimension, (2) the traverse or purposive means-ends dimension, and (3) the horizontal or cross-section dimension. Increasing interest is being manifested in the cultural environmental dimension as a true determinant of personality.

There is some indication that if a holistic analysis of personality is to be made, a new concept of dimension is needed. This may have been found in the concept of a concentric dimension, or that which emphasizes "layers" or levels of personality as contrasted with the vertical-horizontal notion of dimension. Although it is seen in the writings of Maslow, Murphy, Cattell, and perhaps others, apparently no concrete use of this concept has been made. It would seem to regard personality and its dimensions as a true biosphere or Gestalt. Such a view of the dimensions of personality could presumably be developed by combining certain of the concepts discussed here.

⁵⁶ R. La Farge, T. F. Leary, H. Naboiseh, H. S. Coffey, and M. B. Freedman, "The Interpersonal Dimensions of Personality: II. An Objective Study of Repression," *Journal of Personality*, 1953, 24:129-153.

PERCEPTION AND PERSONALITY

A significant movement designed to narrow down the usual approach to the nature of personality is that made from the standpoint of perception. Blake, Ramsey, and Moran, for example, believe that the manner in which each individual perceives or apprehends his world provides the clue to his patterns of behavior. Instead of being a matter of simple response to stimulus situations, behavior is "... governed by learned *interpretations* or *implications* assigned on the basis of experience to configurations of stimulus energies."⁵⁷

Objects of experience (and their relationships) are perceived, not only through the sensory apparatus but in terms of certain prior judgments. Were it not for the *learned reactions* one already possesses the world would probably seem but a jumble of sights and sounds. Through individual experiences one comes to realize that the telephone poles, for example, located along a road subtend smaller angles than those closer to him. Otherwise one would be led to believe that telephone poles diminish in size the farther away they extend.

Perception essentially is a matter of the interpretation of certain types of experiences. "The present approach to an understanding of individual personality, then, entails a significant shift in emphasis. Rather than searching for personality factors or dimensions . . . or identifying the traits underlying individual differences in behavior, the effort shifts to delineation and description of the *determinants of individual differences in perceiving*."⁵⁸

An adequate approach to the problem of perception entails an examination of the structure (and functions) of the physical apparatus involved, the role of learning and dynamics, and the factors of language and culture—the purpose being, of course, to evolve an integrated view of personality. Although the phenomenon of perception, as it bears upon personality, is still relatively unexplored, some aspects of the problem are becoming increasingly clear.

Since individual experience is the prime factor in perception, this view of personality may be called a biosocial one; it relates to the means by which the individual responds to his surroundings in

⁵⁷ R. R. Blake, G. V. Ramsey, and L. J. Moran, "Perceptual Processes as Basic to an Understanding of Complex Behavior," in R. R. Blake and G. V. Ramsey (Eds.), *Perception: An Approach to Personality*, New York: The Ronald Press Company, 1951, p. 8.

⁵⁸ *Ibid.*

terms of his own perception of these surroundings and helps us understand how two people in the same situation may have completely different concepts, both of that situation and of each other.

Some aspects of personality maladjustment can be understood in terms of the process of perception.⁵⁹ What is reacted to as reality to one person is seen as fantasy by another. Our perception of the world, especially as it is seen during the formative years, is immeasurably assisted by that which we learn from those about us. A child from a minority group, for example, perceives his world much differently than do children from cultural groups unhampered by prejudice and discrimination. Frustrations and abuses distort our perception, and experience becomes loaded with potentialities for personality maladjustment. As Cameron writes, "Individuals whose personal inadequacies dominate their thinking—whether this characteristic is accessible to their self-reaction ("conscious") or not—are likely to perceive slights, insinuations, and hostility in the behavior of those around them to a degree that is foreign to adequate individuals."⁶⁰

As the individual responds to his surroundings, there emerges a pattern of behavior based largely on his previous and present perception. It is not merely a matter of the individual's reactions to stimuli but his reactions based upon a complex of previously learned reactions.

SUMMARY

As has been brought out in the present chapter, one of the distinctive features of human behavior is its individuality. Each individual reacts in ways peculiar to himself. In spite of this distinctiveness, there nevertheless appears to be some order in behavior, an organization so to speak. At this stage of knowledge the nature of the organization of personality is not too clear, nor do all students of the subject agree as to what constitutes its principal features. But that there are such features seems generally to be agreed by those who champion the view that personality possesses some patternality.

Thus terms such as traits, attitudes, factors, and dimensions have

⁵⁹ George S. Klein, "Perception, Motives and Personality," in J. L. McCary (Ed.), *Psychology of Personality*, New York: Logos Press, 1956, Chap. 4.

⁶⁰ Norman Cameron, "Perceptual Organization and Behavior Pathology," in R. R. Blake and G. V. Ramsey (Eds.), *Perception: An Approach to Personality*, New York: The Ronald Press Company, 1951, p. 287.

been used to describe what a given writer purports to see in personality. Taken broadly these terms describe certain ways of reacting, or more specifically, certain modes of adjustment. Therefore, if one accepts this organizational concept of personality, it is the imprint of individuality in his adjustments which characterizes man. And it is at this juncture that a major difficulty arises: How are we to distinguish this individuality?

Data from empirical studies to a considerable extent have corroborated the view that there are some organized processes in behavior. Similar stimuli—conceding that such identity exists—in some instances do evoke different reactions. No two individuals react alike. Although no two people encounter the same configurations of stimuli, the different patterns of personality developed by members of the same family would tend to bear out this difference of reaction. In brief, it is through such distinctive behavior that we perceive individual personality. Even though we recognize the fact that each individual's environment is different, we still have not invalidated the individuality of behavior.

It is evident that persons from all cultures manifest distinctive modes of adjustment. Furthermore, given a frame of reference such as traits, attitudes, factors, and the like, these modes are recognizable and amenable to study. Care nevertheless needs to be exercised in assigning any terms as inclusive concepts for ways of behaving. The important point to consider is the individual nature of personality organization.

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11

The Typing of Personality

THEORIES purporting to explain why one human being differs from another in personality have a long history. Even before the time of Hippocrates (about 460 B.C.) Greek medicine had worked out a theory that a man's temperament depended on which of the four "humors"—the fluids thought to make up the liquid contents of the body—dominated him. The words of this theory have entered all modern Western languages. When we speak of a man with a "sanguine" disposition, we are alluding to the view that he has an unusual proportion of blood in his body. By the same token, much phlegm makes a man phlegmatic; if he is choleric, it is through excess of the fluid "choler," or yellow bile; black bile is "melancholy" and dominates the melancholic person. So runs one of the oldest accounts of individual differences.

In an effort to read the secrets of differences in personality, innumerable tools have been devised through the ages as guides to judging character. Even today there are many who reject the more difficult procedures (with their less absolute claims) that scientists have so far worked out, in favor of such nostrums as physiognomy, phrenology, and even astrology.

Human beings seem to seek all-inclusive concepts and have a long-standing tradition of assigning each other to stereotypes that often give pat descriptions of the character to be expected in persons of each sex, each race, and each nation. Though there is evidence that the people of any race or group generally vary more within the group than they all do from other groups, the traditional stereotypes endure in propaganda and popular thought over the generations, perhaps because they offer a sense of permanence in an uncertain world.

Scientific appraisal of personality, to say nothing of a scientific theory of causes for the differences observed, is slow to make headway in the everyday world, for it must push its way through the debris of superstition and prejudice.

PSEUDO-SCIENTIFIC METHODS OF APPRAISING PERSONALITY

Despite the presence of many obstacles, progress has been made in the analysis of personality. The complex forces which affect personality are becoming better understood. Nevertheless, from the Greeks to Freud, man's conception of the organization of personality has been diluted by pseudo-scientific methods of appraisal. A review of certain of these systems follows.

PHYSIOGNOMY

Since without a science man must base his judgments on the unaided use of his senses, the outward appearance of things is the primary source of his data. Physiognomy—the plotting of personality traits on the basis of outward appearances, especially the facial features—has been practiced since ancient times. It is based on the assumption that inner traits, moral and others, are depicted in the features. Much attention is paid to the contour of the eyes, ears, lips, chin, brow, and nose and to such additional features as squareness of shoulders, thickness of neck, size of paunch, length of limbs, and manner of walking.

Those who have advocated physiognomy have seldom agreed as to which features represent what traits, and experience does not always confirm popular notions. The square jaw, for example, does not in all instances mean that the subject is a determined individual. By the same token, the receding chin—that widely acclaimed feature of submission—does not necessarily determine, nor is it necessarily determined by, how the individual behaves. The shape of a man's face or the contours of his body are not always indications of his patterns of behavior. An athlete grown fat may have a protruding paunch brought about by a sedentary occupation entailing great mental effort, but this development may make him neither jolly nor lazy. The effects of sickness, injury, and environment (hunger, for example) are taken too little into account in the popular versions of physiognomy.

Despite the weakness of such a procedure, there still are those who claim to be able to judge personality from observations. Most of us, unwittingly perhaps, still endeavor to do so.

PHRENOLOGY

Many of the criticisms of physiognomy may be leveled at phrenology, the doctrine that personality qualities can be ascertained from protrusions of the skull, which in turn presumably are influenced by the localizations within cerebral regions of specific mental and temperamental faculties. Franz Joseph Gall and J. G. Spurzheim, in their study of the skulls of a group of men known to possess certain personality characteristics, concluded that character traits—firmness, self-esteem, benevolence, love of one's mate, and the rest—each have an assigned place on the surface of the brain. However, their reasoning neglected factors now thought to be essential—the history of the individual and his development, and the shaping of his psychological qualities by experience. Furthermore, protrusions of the cranium do not correspond to either protrusions or depressions of the brain. It may have seemed justified in days when trephining was forbidden to take for granted some such correspondence, but modern brain surgery has here revealed a basic error in phrenology.

Other errors turn up when it comes to localizing functions. Although brain areas are apparently somewhat differentiated with respect to functions, such localization as exists appears to be restricted to relationships between sensory and motor areas and between sense organs and muscle systems. Destruction of a portion of the brain does not result in the loss of a particular function; if any localization exists, the work of one part of the brain can to a considerable extent be taken over by another. Lashley,¹ in a series of remarkable experiments with rats, demonstrated that learning is not a matter of brain localization. He found that even the destroying of various parts of the cortical tissue only temporarily impaired the animal's ability to perform previously learned skills (maze running). Lashley concluded that the functioning of the brain is characterized by *equipotentiality* and *mass action*. Equipotentiality is the capacity of an uninjured portion of the brain to assume the functions lost or impaired by the destruction of other areas. Mass action refers to the degree of effec-

¹ K. S. Lashley, "Studies of Cerebral Function in Learning," *Psychology*, 1920, 2:55.

tiveness in complex brain functions which obtains in ratio to the extent of destruction of brain tissue. The degree of injury is not associated with the particular organization of any of the areas of the brain. According to Lashley's carefully validated research, complex learning is not a matter of the functioning of specific brain areas, but rather a capacity which depends upon the total integrated life processes of the individual.

It may be contended that animal experimentation does not constitute a valid analogy with human experience. However, observations on brain injury in the case of human subjects have substantiated the equipotentiality hypothesis. Excision of certain areas of the cortex in human beings suffering from brain tumors apparently has not always caused a cessation of learning or a failure of recollection of previously acquired associations.² Thus anatomical and physiological observation indicates how untenable phrenological forecasting of personality is.

GRAPHOLOGY

One of the most ancient and still fascinating methods of personality analysis is graphology, a system which purports to judge personality qualities from samples of handwriting. Some graphologists have made extravagant claims regarding their ability to detect such facets of personality as moodiness, affection, pessimism, secretiveness, pride, and the like from an examination of an individual's handwriting. As a rule, such assertions are unfounded.

For example, in one study³ testing the ability of non-graphologists to judge character from handwriting, a group of judges attempted to match 50 handwriting samples with 50 sets of live drawings and with 50 pairs of TAT (Thematic Apperception Test) stories. The handwriting samples and live drawings were matched successfully to an extent greater than chance would permit, but still with a relatively low proportion of correct matches. No statistically significant results were obtained in matching handwriting and TAT stories. In a different phase of the same investigation eleven handwriting

² Lashley wrote: "The learning process and the retention of habits are not dependent upon any finely localized structural changes within the cerebral cortex." Instead, "the mechanisms of integration are to be sought in the dynamic relations among the parts of the nervous system rather than in details of structural differentiation" (K. S. Lashley, *Brain Mechanisms and Intelligence*, Chicago: University of Chicago Press, 1929, p. 176).

³ P. F. Secord, "Studies of Relationship of Handwriting to Personality," *Journal of Personality*, 1918-19, 17:430-418.

variables (such as fullness and slant of letters) were analyzed and compared with the corresponding personality variables as measured by a rating scale. No relation between the two sets of variables was found. The investigator concluded that "the matching method has too many inherent difficulties to give fruitful results in the study of handwriting, and that the analytical method has not demonstrated any relationships between discrete handwriting variables and personality traits."

That the claims of many a self-styled graphologist may be discounted is indicated in another investigation. There a graphologist "did little better than chance" in identifying normal and abnormal individuals. "As a matter of fact, 11 out of 25 unsophisticated judges did as well or better than she did."⁴

Despite these studies some scientists believe that handwriting provides some indication of the presence of certain personality traits. Graphology is being used to some extent in the selection of employees in business and industry, as well as in the diagnosis of personality and the detection of character and temperamental qualities.⁵

A distinction should be made between the work of handwriting experts and graphologists. Handwriting experts examine handwriting in an effort to ascertain its authenticity. Handwriting experts are not interested in the determination of personality traits per se, and although their conclusions are subjective, their work has proved to be of considerable value in legal procedures.

ASTROLOGY

Astrology, one of the oldest of the pseudo personality reading systems, is based upon the assumption that stars and their courses in the heavens influence human destiny. This system has persisted for centuries, long after losing all theoretical support in the science of astronomy, and enjoys considerable vogue even today. Since life apparently is a haphazard affair, everyone is interested in ways to end uncertainty about his future. The attractiveness should be evi-

⁴ G. R. Pascal and B. Suttell, "Testing the Claim of a Graphologist," *Journal of Personality*, 1947-48, 16:192-197.

⁵ J. Sonneiman, *Handwriting Analysis as a Diagnostic Tool*, New York: Grune & Stratton, Inc., 1930. See also Thea S. Lewinson and Joseph Zubin, *Handwriting Analysis: A Series of Scales for Evaluating the Dynamic Aspects of Handwriting*, New York: King's Crown Press, 1942.

dent of a system which claims to foretell not only personality development but the direction of one's life.

Given the year, day, and hour of birth the astrologist claims to be able to ascertain an individual's personality qualities. Although heavenly bodies may influence human beings in indirect ways (e.g., the effect of the moon on the earth's tides), it is naive to assume that they foretell personality or intellectual development. To say the least, astrology has not produced scientifically substantiated evidence favorable to its claims.

In a concrete study⁶ of modern astrologers of considerable reputation a number of replies to questions, the answers to which already were known, were requested. The investigator discovered that although the questions invited interpretation, the answers did not even come close to the facts. Despite this outcome the newsstands are replete with astrological prophecies and character readings. And there still is no shortage of either those who practice or those who patronize this "art."

THE APPEALS OF QUESTIONABLE SYSTEMS OF PERSONALITY ANALYSIS

There are many other personality-reading systems that involve the same weaknesses as those mentioned above. As McDougall writes, "Superstition and fear have always provided soil for the sower of supernatural lore. A complete list . . . of fakers and fanatics would be interminable."⁷ Studies have been made which reveal a still widespread belief in the allegations of graphologists, palm readers, astrologists, and the like. Unfortunately, there is an appeal in the claims of the charlatan which the uninformed have always found difficult to resist. Hepner has recorded the view of a typical modern psychologist on this appeal as follows: "These cults seem to satisfy the inner cravings of the weak and maladjusted, who wander from one cult to the next only to find that they attain what they want for a short time and then must try some other 'system.' These cults and 'philosophies' are a means of evasion of the difficulties of life. They offer a prompt and immediate answer to the poorly adjusted neurotic." Hepner concludes his evaluation by saying, "All these

⁶ Reported in Louis P. Thorpe, *Psychological Foundations of Personality*, New York: McGraw-Hill Book Company, Inc., 1938, pp. 474-475.

⁷ C. D. McDougall, *Hoaxes*, New York: The Macmillan Company, 1940, p. 20.

schemes for analysing people or guiding them are considered unsound by the students of modern science."⁸

The fact that various unfounded systems of personality appraisal are still extant today may be due, among other factors, to (1) the persistence in our culture of folklore divorced from foundations in the science of recent centuries, (2) the relative instability of personality data, and the present lack of any highly successful scientific method for judging them, (3) the impatience and curiosity of the average individual in face of this lack, (4) the hope for financial gain or other success on the part of various practitioners, and (5) the "will to believe," present in so many people, that certainty of knowledge exists simply because it is so desirable. Curiosity, ignorance, and sheer boredom may also explain the patronage of the various cults. In point of cosmic time man can be said to be only seconds out of the primeval forests. Much of the jungle still clings to his thinking. There is hope, however, that as psychology adds to our stock of well-grounded information, naive beliefs will gradually vanish.

CONSTITUTIONAL TYPING

One of the more prominent modern outgrowths of the ancient "humoral" psychology is that called *constitutional* psychology. Just as the ancients classified people into the sanguine, the melancholy, the phlegmatic, and the choleric, so constitutional psychology has endeavored to establish fundamental types of personality based upon body features (morphology). Personality is thought to be the logical manifestation of the direction of physical and physiological development.

All typing of personality, it bears repeating, is a matter of definition. Although a structure of personality might be erected upon the correlation of temperament and morphology, such a structure would rest upon a definitive foundation. Types are interpreted in harmony with the correlations which a given interpreter prefers to recognize. It is very unlikely that complete unanimity could be found regarding any of the personality type schemes. In the systems to be presented, correlations peculiar to one system may lose their meaning when applied to a different basic design.

⁸ H. W. Hepner, *Psychology in Modern Business*, Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1930, p. 151.

THE ENDOCRINE GLANDS⁹

When the ancient Greeks based their theory of personality formation on the body's fluids as causal factors, they came closer to certain current theories than one might have expected. It has long been known that the so-called *endocrine glands*—the pituitary, the thyroid, the adrenals, the gonads, to name a few—release into the bloodstream certain substances, called *hormones*, that thus reach every cell in the body and stimulate or inhibit the activity of the various organs. These glands constitute a series of remote-control stations, sending out their impulses in the form of body fluids. Their function of communicating impulses and bringing the processes of the body into coordination is comparable to the function of the nervous system, but their mode of chemical communication is more primitive than that of nerve impulse.

Basing their views on the demonstrated facts of endocrine influence, some more or less recent constitutional psychologists have evolved the theory that endocrine secretions are the decisive factor in producing personality traits. Just as the ancients supposed that if a man was of "sanguine" temperament, he would prove to have a greater than average proportion of blood in his body, modern investigators have tried to correlate certain traits with a prolonged high secretion of the thyroid gland, or a defect (hypothyroidism) of this secretion. Other traits have been correlated with high or low secretion of the adrenal glands, and so on. In medicine efforts are made to correct both personality defects and organic diseases by supplying the body with more hormones, or by reducing internal secretions. There is a vast body of research based on this approach and recorded in the literature of medical science, as well as of psychology.

The type classifications to be described next also correlate personality traits with body development, but do not center so firmly in the endocrine glands as the essential causal factors.

KRETSCHMER'S CONSTITUTIONAL TYPES

Constitutional psychology attempts to establish a correlation between *body type* and personality traits. It represents an investigation of personality in terms of the underlying physical (and physiological)

⁹ For a more detailed account of the functions of the endocrine glands see Chapter 2 of the present text. See also R. G. Hoskins, *Endocrinology: The Glands and Their Functions*, New York: W. W. Norton and Company, Inc., 1931.

correlates assumed to constitute a basis for behavior. The German psychiatrist Kretschmer, one of the pioneers in this area of research, developed an extensive system designed to describe morphology (body form) in relation to both character and manifestations of personality, particularly in the realm of psychotic temperament.¹⁰ In outlining his plan Kretschmer claimed to have identified three major and several minor (subsumed under one general label) types of body builds. He believed that these types were more fundamental than so-called racial types, and that characteristic temperaments could be isolated within each type.

Kretschmer's three principal types may be described briefly as follows. The *pyknic* type is typified by the plump individual with a round and heavy-set body, short legs, a thick neck, a broad face, and a full abdomen. This is the "fat man" so often seen in literature. The *asthenic* type (named later by Kretschmer the *leptosomic* physique) comprises individuals with a relative small trunk, sharp and lean features, long extremities, shallow chest, and, as a rule, tall stature. This is the proverbial "thin man." The *athletic* type resembles the asthenic type except for a more symmetrical development of muscles, firmer and more robust features, and a heavier and athletic body in general. The average baseball player would serve as an example of this type. A fourth place is given to the so-called *dysplastic type*, composed of individuals who, possibly because of glandular or other anomalies, lie outside the domains of the other three more or less clear-cut types.

Kretschmer believed that there is a marked relationship between each of the above-mentioned body types and temperamental qualities. Although he did not deny the wide variation in temperament found among and within individual types, he was insistent in his belief that body types are correlated with certain psychotic temperaments. Since Kretschmer secured most of his data from a study of manic-depressive and schizophrenic subjects, his bias is perhaps understandable.

Being already in possession of some useful data from another German psychiatrist, Kraepelin,¹¹ Kretschmer attempted further to clarify

¹⁰ E. Kretschmer, *Physique and Character*, London: Routledge & Kegan Paul, Ltd., 1925. Translated by W. J. H. Spcott.

¹¹ E. Kraepelin, *Clinical Psychiatry*, New York: The Macmillan Company, 1907. Translated by A. Dieffendorf.

the problem by making a clear distinction among the major mental disorders. His greatest contribution would appear to lie in his scientific investigation of the two principal groups of psychoses—the *manic-depressive* and the *schizophrenic*. He diagnosed the first group as involving flights of elation, hyperactivity, and delusions of grandeur (manic phase), alternating with anxiety, slowness of response, and excessive melancholy (depressive phase). Thus the manic-depressive individual is characterized by periods of contrasting exaltation and depression. Schizophrenia involves a "split" (between the affective and cognitive processes) personality, which Kretschmer described as characterized by stereotyped actions, mutism, apathy, and emotional confusion.

Taking his cue from clinical findings, Kretschmer set out to ascertain whether an identifiable relationship exists between these behavioral disorders and certain physical characteristics. The question involved was whether individuals with certain body types tend to develop given mental disorders, and if so, how these types could be classified. In an examination of 400 mental patients Kretschmer found a striking relationship between body type and mental disorder. So consistently did this matching occur that he asserted that whereas schizophrenics were for the most part fairly tall, lean, and flat-chested, manic-depressives generally were well-rounded, plump, somewhat short, and deep-chested. Kretschmer thus supposed that he had established a basis for his type system.

From his findings Kretschmer concluded that a relationship obtains between body build and the personality trends of the normal individual. He considered abnormal personalities to be end products of trends detectable in normal people.

Kretschmer believed that the schizophrenic personality represents the exaggerated development of its normal counterpart—the *schizothyme*, or shut-in personality—and that the true manic-depressive (cyclothymosis) case is the extreme of the normal *cyclothyme*, or easy-going personality. Kretschmer also noted that normal schizothyme types tended to have asthenic or leptosome bodies and that normal cyclothyme types had pyknic features.

Kretschmer was no armchair psychiatrist. His findings were based upon considerable evidence. In connection with an exhaustive clinical study of some 400 cases Kretschmer wrote: "Great stress was laid on the inclusion in all the types of a carefully arranged mixture of

fresh and old cases, people of every age, and every occupation, in order to avoid those causes of error which otherwise spring from the influence of such isolated causal factors, and also, so that we might be in a position to observe the changes of the single types throughout a long period of life." ¹²

In a recent analysis of Kretschmer's hypothesis involving the testing of 100 (all male) normal subjects, 50 schizophrenic (24 male, 26 female), and 50 manic-depressive (25 males, 25 female) patients with a battery of objective tests, Eysenck ¹³ concluded that schizophrenia and manic-depressive psychosis cannot, qualitatively at least, be differentiated from normal states. These two functional disorders (schizophrenia and manic-depressive psychosis), he wrote, each "form one extreme of a continuum which goes all the way from the perfectly normal, rational to the completely insane, psychotic individual."

PENDE'S BIOTYPOLOGY

One of the most ambitious of the modern attempts to follow the personality categories of the ancient Greeks was made by the Italian physician Pende in 1924. To represent his classificatory scheme he coined the term *biotypology* to refer to the four "qualities"—constitution, temperament, character, and type of intelligence. The *biotype* embraces the four categories of "vital phenomena, . . . considered both from a somatic (constitutional) and from a psychic standpoint (character and type of intelligence) which, combined and with their reciprocal correlations, constitute the human individuality conceived as a psychosomatic vital unit." ¹⁴

Pende's design was multidimensional in that it utilized all of the facets of the four "qualities" he ascribed to personality. His analysis began with the morphologic or body-form aspects, which he divided into two fundamental types, the *hypervegetative*, in which the trunk or vegetative system predominates, and the *hypovegetative*, in which the animal system predominates over the vegetative. In his appraisal of character and conduct he again distinguished two types, the *tachypsychic*, usually quick, irritable, and hyperemotional; and the *bradypsychic*. Although Pende recognized that education and culture

¹² E. Kretschmer, *op. cit.*, p. 15.

¹³ H. J. Eysenck, "Schizothymia-Cyclothymia as a Dimension of Personality," *Journal of Personality*, 1952, 20:345-384.

¹⁴ N. Pende, "Biotypology," in G. M. Piersol (Ed.), *The Cyclopedia of Medicine, Surgery and Specialties*, Philadelphia: F. A. Davis Company, 1944, Vol. V, p. 593.

modify character and conduct, he proposed that "biotypology should seek, as far as possible, to classify *character* according to the original moral character of the individual."

The fourth quality, intelligence, is, according to Pende, not only quantitative but qualitative. His criterion of intelligence, other than the quantitative, is "whether the intelligence is of the intuitive, logical, synthetic or analytic type, or of a fantastic-mythic, concrete or abstract type." The tachypsychic individual he related to the intuitive, subjective, and fantastic type of intelligence, and the brady-psychic person with the logical, objective, analytic, and concrete intelligence.

Pende believed that his scheme could be coordinated in the diagnosis and prognosis of the individual, and also that it could prevent and correct anomalies of growth (endocrine gland investigation); for if we are aware of the practices which make for health and well-being we are in an advantageous position to improve health and character, prevent mental disorders, and minimize accidents and disease.

Pende's scheme of biotypology suffers from several flaws. There would appear to be sufficient data to indicate that Pende's arbitrarily derived constitutional types do not necessarily possess the qualities which he ascribes to them. For example, the thin man is not always quick-moving and unstable. Also, since intelligence now is considered to be a unitary function and not a thing-in-itself which relates to personality types, his definition of intelligence would not be accepted today.

The structure which Pende fashioned to house his theory evidently is too inclusive. Individual variation is much too extensive to admit of such neat categorization—attractive though it may be.

NACCARATI'S MORPHOLOGIC TYPES

Another student of constitutional psychology who attempted to clarify the morphologic approach to personality was the Italian Naccarati. Motivated by the anthropological findings of his countryman Viola, Naccarati attempted to relate body build to intelligence in terms of quantitative measurement. Although conceding that intelligence is too complex a factor to be gauged by one or even several physical attributes, Naccarati was determined to work out a physical index composed of many elementary traits. He reasoned that if he could establish such a list of physical traits, he would contribute to the

understanding of man's mental organization. This composite of a number of select physical measurements constitutes his widely heralded "morphologic index."¹⁵ In its simple form the index may be described as follows:

$$\text{Morphologic index (M.I.)} = \frac{\text{length of two limbs}}{\text{volume of trunk}}$$

However, both a more elaborate computation and a simple height-weight ratio were used by Naccarati and his associates in their later investigations.¹⁶

Naccarati identified two outstanding body types: *microsplanchnic* and *macrosplanchnic*. The *microsplanchnic* person has a trunk so small that the development of the limbs seems larger: "the vertical diameters predominate over the horizontal diameters in the body as a whole and in its constituents, trunk, extremities and portions of the extremities." The *macrosplanchnic* individual possesses a trunk sufficiently large to be considered overdeveloped when compared with the limbs, and "the horizontal diameters are prominent in comparison with the vertical diameters in the body as a whole and in its constituents, trunk, extremities and portions of the extremities." Although Naccarati did not eliminate accidental factors, he maintained a strong belief in the influence of heredity, contending that the action of hormones plays some part in differentiating (physically) individuals in the same family and even in the same ethnic group.

In his researches Naccarati noted that intelligent individuals tend to be tall and thin, with small trunks and well-developed limbs, and conversely, that duller persons often are stout, with large trunks and relatively less developed limbs. From these observations he concluded that *microsplanchny* is indicative of intelligence, and *macrosplanchny* is associated with dullness. His morphologic index was presumed to indicate the degree of intelligence possessed by a given individual—the extent of intelligence depending, of course, upon the particular body build. Naccarati assumed that *microsplanchny* indicates a superior development of the nervous system and its attributes, whereas *macrosplanchny* represents the presence of a well-developed vegetative or nutritional system.

¹⁵ S. Naccarati, "The Morphologic Aspects of Intelligence," *Archives of Psychology*, 1921, 6:1-44.

¹⁶ S. Naccarati and H. E. Garrett, "The Influence of Constitutional Factors on Behavior," *Journal of Experimental Psychology*, 1923, 6:455-465.

In Naccarati's index the ratio of height to weight was the fundamental indication of physical type and thus of intelligence. However, not satisfied with differences in intelligence alone, Naccarati attempted, by applying his morphologic index techniques to an examination of psychoneurotic individuals, to relate morphologic types to temperamental or other personality traits. In an investigation¹⁷ of 100 Italian males of varying ages—diagnosed previously as exhibiting some form of psychoneurosis—Naccarati came to the conclusions (1) that there were more microsplanchnics and macrosplanchnics among the psychoneurotic than in a similar number of normal individuals of like age, (2) that microsplanchnics tend to be neurasthenic, and (3) that macrosplanchnics are more likely to be found among the emotional psychoneurotics. These conclusions would mean that lean, long-limbed individuals are inclined toward fatigue or "nervous" exhaustion, and that plump, rotund persons tend toward hysteria and anxiety neurosis. Normosplanchnics (individuals in whom there is a proportionate relationship between trunk and extremities) are said to possess marked resistance to both internal and external pathogenic influence. Because of this ability to resist frustration and conflict, the normosplanchnic individual tends to be emotionally stable.

Paterson¹⁸ has disagreed with these findings even on the basis of Naccarati's own data. Instead of Naccarati's results leading to a bimodal curve of distribution characterized chiefly by the two contrasted types, the morphologic indices of the 100 Italians between ages twenty-five and forty, when studied by Paterson, resulted in the formulation of a fairly normal *unimodal* distribution. Although the thin, long-limbed individuals showed a much higher average morphologic index (460) than did the heavier more emotional subjects (375), taken together the 100 psychoneurotics yielded practically a normal curve of distribution. The alleged types turned out to be the relatively extreme and contrasted cases found on either end of the distribution. This means that there is little reason for assuming, as Naccarati did, that the normosplanchnic is any less psychoneurotic than any other individual.

¹⁷ S. Naccarati, "The Morphologic Basis of the Psychoneuroses," *American Journal of Psychiatry*, 1924, 3:527-545.

¹⁸ D. G. Paterson, *Physique and Intellect*, New York: Appleton-Century-Crofts, Inc., 1930, pp. 221-222.

In another examination of Naccarati's hypothesis, Heidbreder¹⁹ examined 1000 white, native-born freshmen at the University of Minnesota in an effort to ascertain how physical types relate to scores on intelligence tests. After measuring her subjects as to height and weight, Heidbreder compared these measurements with their scores on five intelligence tests (the Arithmetical Reasoning Test adapted from the Alpha Test, A Reasoning Test taken from the Psychological Examination published by the American Council on Education, etc.). Heidbreder's correlations between intellectual status and morphologic index were approximately zero. She therefore concluded that "the present study has failed to bring out any evidence in support of Naccarati's conclusion."

Such findings have corroborated the basic weaknesses of the constitutional type idea. Most individuals do not fall into arbitrary classifications. On the contrary, individual variation would appear to rule out the possibility of rigid categorization. Although individuals differ, to hold these differences within predefined areas does not conform to the facts which have been amassed. Naccarati's classifications now appear far too narrow in design. As Tyler states in connection with research into group differences, "The most universal generalization emerging from all the research on . . . differences has been that the variability *within* the group in most respects far outweighs the differences between them."²⁰

SHELDON'S CONSTITUTIONAL TYPES

Temperament types are usually considered to be the basis of a constitutional view of personality. Thus evidence is based on general principles and the personality measured in terms of basic types. As Sheldon and Stevens write, "Constitutional psychology seeks a basic taxonomy of human beings. It asks for a frame of reference against which individuality may be set off and classified and scaled—a frame of reference simple enough to be comprehensible, yet full enough to account for most of the variety of human differences."²¹

According to these investigators, the basic components of mor-

¹⁹ Edna Heidbreder, "Intelligence and the Height-Weight Ratio," *Journal of Applied Psychology*, 1926, 10:52-62.

²⁰ L. F. Tyler, *The Psychology of Human Differences*, New York: Appleton-Century-Crofts, Inc., 1947, p. 397.

²¹ William H. Sheldon and S. S. Stevens, *The Varieties of Temperament*, New York: Harper & Brothers, 1942, p. 3.

phology, at least in the case of adult males, are comprehended in three body types or *somatotypes*: (1) *endomorph*y, in which the digestive viscera are massive and highly developed, other body structures being relatively flabby and weak; (2) *mesomorph*y, in which muscle, bone, and connective tissue are in the ascendancy, the blood vessels being large and the skin relatively firm and thick; and (3) *ectomorph*y, in which there is only slight development of somatic and visceral structures, the chest being flat and the body somewhat delicate and lean. However, instead of concerning themselves with two or more specific types of physique, Sheldon and his collaborators classified somatotypes on a 7-point scale which can be resolved into a normal curve of distribution, and on which 7-1-1 is the most pronounced endomorph, 1-7-1 the most pronounced mesomorph, and 1-1-7 the most pronounced ectomorph.²²

Personality is then a way in which the nature of an individual's physical inheritance is made manifest. The "impulsive" person, for example, is one who most likely possesses muscles, glands, and nerves capable of the interactions required for quick responses. The "energetic" person, it is assumed in "temperament thinking," possesses the physiological attributes which generate energy to a high degree. In other words, the type of physical apparatus the individual possesses gives direction to his activity. Falstaff, being of rotund girth, was happy and carefree because corpulence makes for happiness and freedom from worry. Conversely, Cassius was lean and hence ambitious. These examples are of course caricatures, but they demonstrate how profoundly such thinking has influenced much of man's literary efforts.

Following this body-temperament hypothesis, Sheldon, with the collaboration of Stevens, has advanced what he believes to be a strong scientific case based upon considerable clinical evidence. He has classified human beings into three basic temperament types, i.e., the *viscerotonic*, the *somatotonic*, and the *cerebrotonic*. These three types are recognizable, so Sheldon asserts, by the consistency of their actions, many of which were checked clinically.

The viscerotonic individual in this scheme possesses a large body contour, has a good appetite, and generally is relaxed and even-tempered. Such a person is of philosophical bent, in the colloquial sense

²² William H. Sheldon, S. S. Stevens, and W. B. Tucker, *The Varieties of Human Physique*, New York: Harper & Brothers, 1940.

of that term, and accepts life as he sees it. He takes things easy and does not worry about matters beyond his direct interest. As Sheldon writes, "The individual is placidly complacent about himself and his relations to his world, and about the outer affairs of life. . . . He goes placidly on in the way which he has found pleasant" (p. 42).

The somatotonic individual is, as one would expect, of strong muscular development. He is characteristically athletic, brisk of movement, self-assertive, and dominating in most situations. He likes activity for its own sake; he may even be combative. He is stoical in his outlook on life and indifferent alike to physical pain and psychological censure. Being psychologically "insensitive" such an individual pays little attention to the needs and desires of others. As Sheldon describes such persons, "The primary objectives of life are embodied in competitive struggle. Competition for power, for recognition, for money and for status" (p. 67).

The person of cerebrotonic type is, as the name implies, one in whom the brain and sensory apparatus are dominant features. Such a person is generally slim, underdeveloped, and restrained in his movements (the familiar "bookworm" stereotype). He desires privacy above all else, being hypersensitive to the frustrations and conflicts of the world about him. He is usually "mentally overintensive." In short, he is acutely aware of the stimuli which cause him to respond, a condition which leads to personality imbalance. The bodily movements of such a person are restrained; his emotions are also kept under control. Although perhaps brilliant, the cerebrotonic individual avoids making any overt display of his talents. Since he tends to withdraw from people, he is a more or less maladjusted person. "The [cerebrotonic] individual turns away from 'reality' abandoning it somewhat as a captain might first unship the least valuable part of his cargo in a storm," writes Sheldon. "The thing to be saved at all costs is the continuity and integrity of the inner awareness" (p. 88).

A REVIEW OF SHELDON'S TYPOLOGY

In a study²³ of the relation between somatotypes and self-ratings in terms of Sheldon's temperamental traits, Child reported finding substantial corroboration of Sheldon's hypothesis of somatotonia. Some

²³ I. L. Child, "The Relation of Somatotype to Self-Ratings on Sheldon's Temperament Traits," *Journal of Personality*, 1949-50, 18:440-453.

400 male students, diagnosed as somatotypes according to Sheldon's index, were requested to fill out questionnaires designed as self-rating measures. Among the items in the questionnaire which characterized certain of these subjects were the following: "Withstands pain easily and willingly," "In talking with another person, looks at him right in the eyes," "Likes cold showers," "Likes to participate in strenuous or dangerous physical adventure," "Likes to have collar and shirt front open," and "Has real desire for strenuous exercise." Child's results led him to say that "Sheldon's findings as to the existence and direction of correlations between somatotypy and a variety of personal characteristics were on the whole confirmed." Child added, however, that the magnitude of his own correlations did not "warrant considering somatotype as a really important determinant of personality."

In another investigation²⁴ of the relation of somatotype to reaction time, resistance to pain, and expressive movements, Janoff and his colleagues tested 51 college students considered as somatotypes. On the basis of their findings the investigators concluded that "somatotype is not a very important determinant of measures of reaction time and resistance to pain."

Adcock,²⁵ in discussing Sheldon's constitutional types in connection with his own view of temperament (based upon a factorial analysis), holds that one must be careful in making any one-to-one correlations of trait and body type. According to Adcock, there are four general factors involved in temperament, namely, "autonomic lability," "autonomic balance," "drive," and "tenderness." He holds that there are a number of traits common to his factors and Sheldon's types. For example, viscerotonic persons display such tenderness traits as "greed for affection" and "need of people when troubled." Somatotonic persons evince such "drive" characteristics as "love of physical adventure" and "love of risk and chance." Nevertheless, Adcock concludes that Sheldon's traits, while they "correlate moderately highly . . . , cannot be regarded as independent factors."

Sheldon has supported his tripartite division of man according to

²⁴ I. Z. Janoff, L. H. Beck, and I. L. Child, "The Relation of Somatotype to Reaction Time, Resistance to Pain and Expressive Movement," *Journal of Personality*, 1949-50, 18:454-460.

²⁵ C. J. Adcock, "A Factorial Examination of Sheldon's Types," *Journal of Personality*, 1947-48, 16:312-319.

body type and temperament by an intensive and extensive series of investigations. There is no one-to-one correlation in the scheme. While there is little doubt that the body cavity, the muscular system, and the brain are the basis of the organism's activity, these three systems are interrelated. Although a given individual may be muscular to a greater *degree* than many others, no one is a purely muscular (somatotonic) type. Sheldon is quick to admit that the "average" person is a composite of the three types and that some persons are a perfect balance of the three. In other words, his classification is merely a means by which personality patterns can be examined and, it is hoped, better understood. Sheldon insists that there must be some general principles by way of which one can investigate personality.

While there may be much to recommend Sheldon's scheme, two features have been criticized, with some justification: (1) the assumption that traits are a product of the body or its development, and (2) the neglect of the role of the environment in molding both the body and its functions. For instance, a person may be mentally subnormal in youth (according to I.Q. test results) but later develop his intelligence to a much higher degree. The initial subnormal condition may have been due either to physical or to emotional factors. In short, there are many different factors which can be said to contribute to the pattern of one's behavior. Again, one can point out certain muscular persons who not only are not competitive but who enjoy studying academic subjects. And many energetic individuals shudder at the thought of competition and conflict. In effect, there does not appear to be conclusive evidence for a true cause-and-effect relationship between body type and temperament. Even in Sheldon's own work one can discern the effects of cultural as well as physical factors.

Regardless of an individual's body build, the potent influence of the environment cannot be overlooked as it manifests itself physically, culturally, and socially. For example, where food is scarce, large appetites will tend to be suppressed and in time the group will become changed in body contour. In a culture requiring submission on the part of the child, the person with presumed tendencies to dominate must act submissively or face the frightening risk of social disfavor. The habitual attitude may thus so overlay any

"original" temperament as to cause doubt about what that original was. Behavior varies in harmony with the demands of a particular social group. Highly organized societies have at their disposal not only the force of moral taboos but also legal systems with which to enforce their codes of conduct.

THE THEORY OF PSYCHOLOGICAL TYPES

SPRANGER'S "COMMUNITY OF INTERESTS" TYPES

The preceding systems of personality typing were based upon a presumed correlation between bodily properties and varieties of temperament. There are, however, systems of personality typing which are psychological. Spranger's "Community of Interests" is one of these systems.²⁶

Spranger, a one-time leader of the German Kulturphilosophie school, has maintained that man can be classified into psychological types on the basis of communities of interest and sense of values. Spranger presupposed that the dominant interests of men and women are expressions of their innate character. Personality is not, according to this view, a product of the interaction of organism and environment, but is predetermined in genetic constitution. In harmony with such a theory of *Qualitätstypen* (quality types) Spranger proposed six "pure" types of personalities. These he differentiated on the basis of their subjective sense of values as the theoretic, aesthetic, social, economic, political, and religious types.

Spranger's interest types, so elaborately delineated in his book, *Types of Men*, may be described briefly as follows:

1. The *theoretical* are concerned principally with scientific matters, an objective search for truth, and the operation of law in natural phenomena. This type of individual is inclined to neglect social and political matters.

2. The *economic* are interested in business matters, goods, investments, profits, utility, and wealth. This type of person is the typical businessman with an eye to thrift, industry, and profit.

3. The *aesthetic* are lovers of the beautiful in sound, form, color, and proportion. This type is inclined to be impractical and impa-

²⁶ E. Spranger, *Types of Men*, Halle: Niemeyer, 1928.

tient with conventional and economic matters, and to crave freedom from regimentation.

4. The *social* are promoters of philanthropic movements and humane enterprises in general. This type is given to sympathy and service without much thought of reward or self-aggrandizement.

5. The *political* are motivated by a strong desire for power. These people are the manipulators of political intrigues and men's destinies, and are on the lookout for opportunities to gain autocratic control.

6. The *religious* are either the mystics who see the divine hand in every ramification of life or the ardent missionaries who give up everything for the salvation of others or the "message" they love.

By employing a personality scale embodying specific life situations emblematic of the six varieties of interest values in question, Allport and Vernon²⁷ concluded that Spranger's classifications are diagnostic of types of personality. They found as well that there is considerable agreement between the political and economic and between the social and religious trait constellations; and that some types, notably the economic and political, are antagonistic toward the more gentle aesthetic and religious types. It therefore is supposed that research data, although they do not support the hypothesis of mutually exclusive interest types, do indicate the presence in some persons of characteristic community of interest patterns of personality.

That patterns of personality such as those proposed by Spranger exist there can be little doubt. Many persons' interests are integrated in such a way as to make them appear to be predominantly aesthetic or social or political. Nevertheless, here as elsewhere, there are practical objections to the strict typing of personality. The normal individual's patterns of response are never static or regimented; they fluctuate as adjustments are made from situation to situation. Men who are characteristically social in some situations are frequently businesslike (of the economic type) in others, and those who for the most part are political may on other occasions manifest decidedly aesthetic behavior. Their behavior fluctuates from type to type depending on the situation. Spranger, although he has to a considerable extent neglected the social stimulus factor in his system, has pointed out dominating interest patterns in men.

²⁷ Gordon W. Allport and P. E. Vernon, *A Study of Values*, Boston: Houghton Mifflin Company, 1931.

JUNG'S INTROVERT-EXTROVERT TYPES

For Jung, man can be separated into two types: the *introvert* and the *extrovert*. These types are regarded as the normal counterparts of the two major functional psychoses, the schizophrenic and the manic-depressive disorders, respectively.

Jung described introversion as a condition of psychological balance in which the individual turns his life energy inward. That is to say, he is governed by subjective factors. Extroversion, the contrasting type, marks the individual whose life energy is directed outward to people and tangible objects.²⁸ In an effort to effect a more detailed analysis of introvert-extrovert personalities, Jung subdivided each into four subtypes:—the *thinking*, the *feeling*, the *intuitive*, and the *sensational* introvert or extrovert.²⁹ This subdivision of types to some extent has been substantiated by a factor-analysis of items in personality inventories dealing with the concept of introversion-extroversion.³⁰

In an investigation of 170 college students, North³¹ noted the presence of two primary dimensions of personality, which he defined on the basis of item analysis as (1) cycloid emotionality and depression, and (2) impulsiveness or freedom from restraint. These primary dimensions were derived from a factor analysis of the Guilford introversion-extroversion scores (STDCR). In addition the students were given the Kuder Preference Record and the Army General Classification Test. It was shown that cycloid emotionality and depression are significantly related, if only slightly and in the negative direction, to intelligence and interest scores in mechanics, computation, and science (Kuder Preference Record), and in the positive direction to literary interests. Impulsiveness or freedom from restraint (as a primary dimension) is significantly related to weight-height ratio. Interest in persuasion is related negatively to interest in computation (Kuder Preference Record). Sex education and age

²⁸ For a more detailed account of Jung's introversion-extroversion types see Chapter 9 in the present text.

²⁹ C. G. Jung, *Psychological Types*, New York: Harcourt, Brace and Company, Inc., 1923.

³⁰ J. P. Guilford, *An Inventory of Factors S T D C R*, Beverly Hills, Calif.: Sheridan Supply Co., 1940.

³¹ R. D. North, Jr., "An Analysis of the Personality Dimension of Introversion-Extroversion," *Journal of Personality*, 1949, 17:352-367.

were not significantly related to either of the two personality factors in the group of subjects studied.

SUMMARY

This chapter has examined certain methods of appraisal involved in systems which purport to type personality. Some proponents of typing have correlated personality traits with bodily features, others with glandular functioning, and so on. In all of these attempts one tendency stands out clearly—the desire to draw up a system of classification of patterns of personality. However, the facts apparently do not always warrant rigid categorization. The evaluation of personality cannot be summed up in a system of taxonomy alone. A trait or other dimension of personality is not measured in the same way as a chemical reaction, a fact which from the outset tends to invalidate any correlations noted.

It will take much careful study and measurement by trained personnel before any final statements with respect to the typing of personality can be made. The data to be assessed must issue from scientific procedure, not from palm reading or the movements of the stars. Many considerations other than overt observation must be included in such a quest. For instance, personalities to some degree are the products of social forces. To type personality in terms of arbitrary genetic constitution is to overlook the influence of many cultural pressures. At present societies appear to provide personality with many of the dimensions which characterize it. Although classification has both an appeal and an element of truth, it is unlikely that all-inclusive typing of personality is possible.

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12

Evaluation of Personality

OF THE many approaches to the dimensions of personality, none is more far-reaching in implication than the movement for evaluating personality by personality tests.

Testing to appraise personality is a logical outcome of the need for more objective information about the individual. Objectification in turn has required the development of statistical formulae designed to standardize and verify the data secured by testing. The results of this movement are the most precise measurements of personality so far attained.

As commonly understood, a personality test is a device that singles out and measures aspects or dimensions of personality through answers or performances in response to predefined questions. These answers are recorded on a scale of response units. The test represents an artificially constructed situation of stimulus and response. The individual is presented with questions (stimuli) and responds with verbal answers or performances (responses). These sequences constitute the data for personality appraisal.

PROBLEMS OF INTERPRETATION

An instrument of measurement, whether in physics or psychology is in itself no guarantee of precision. What is of prime importance is the interpretation made by the investigator from the data furnished him. In personality tests a number of difficulties and dangers of interpretation are involved.¹

¹ That we must exercise care and discretion with respect to personality tests is obvious. Thorndike warned us that "the results of personality tests . . . cast some doubt upon the assumption that a person's natural, ordinary thinking reveals his interests

Since any test singles out certain aspects of personality for measurement, the interpreter is in danger of losing perspective through forgetting that evaluation is more than a collection of particular details. An individual's intelligence is bound up with his social skill, his temperament, and his other characteristics. Even ten or a dozen personality tests or inventories yield only particular experiences and particular characteristics. To gain a holistic view of the individual the interpreter must approach appraisal with an organized conceptual framework as well as with a patterned battery of tests.

Maller sums up the situation in this respect by asserting that "no single test can possibly be diagnostic of the total personality, . . . furthermore, since personality is . . . but the resultant of dynamic forces in action, even a battery of tests of many isolated elements of personality would fail to yield a picture of the total personality as it functions."²

The first problem faced in devising personality tests is a problem not ordinarily encountered in the physical sciences—that of *stabilizing the data*.

For instance, tests of attitudes or traits are only measures of past behavior, or rather of conditioned dispositions to act in certain ways. Because an individual's behavior changes from day to day, personality tests are faced with still other difficulties. But this fact does not necessarily imply inadequacy of scientific measurement to the extent that it should be abandoned. Although many tests of personality which have enjoyed notable success are subjective, they do not necessarily violate the canons of science in their construction and administration.

As has been stated elsewhere, "Despite differences of theory, there is general agreement that personality is reflected in perception of events and in one's emotional reactions to objects, persons, or concepts."³ Psychology has developed standardized instruments by which

perfectly. In so far as it (personality data) is in the form of words, it, too, may be an imperfect index." Nevertheless we require some means of measuring personality, and while we must heed the warnings of Thorndike and others, it still seems reasonable to forge ahead with whatever instruments we possess. The progress which already has been made then can serve as a guide to further research regarding measurement (Edward L. Thorndike, *Selected Writings from a Connectionist Psychology*, New York: Appleton-Century-Crofts, Inc., 1949, p. 266).

² J. B. Maller, "Personality Tests," in J. McV. Hunt (Ed.), *Personality and the Behavior Disorders*, New York: The Ronald Press Company, 1944, Vol. I, p. 170.

³ C. M. Harsh and H. G. Schrickel, *Personality: Development and Assessment*, New York: The Ronald Press Company, 1950, p. 397.

such perception and reactions can be measured. Thus despite the many difficulties involved, a considerable amount of valuable information regarding the measurement of personality has been secured.

OBJECTIVITY IN MEASUREMENT

A second problem faces the investigator of human responses—that of *securing objective data*. Scientific procedure always involves objective measurement, and much paraphernalia has been devised—tests, questionnaires, scales—to standardize measurements of various components of personality. There is a need for measurement of responses the nature of which does not depend upon the particular views or theories of the observer, and this need has been met by making *behavior* the criterion of what is to be measured.

Behaviorists have maintained that the movements of the individual as he adapts to his environment are the only possible source of data concerning personality development or adjustment. There would appear to be a modicum of truth in the behaviorist's assertion. For whatever else may be said of personality study, one must grant the point that from the outset measurement regarding personality is concerned with overt behavior. The fact that the behavior observed in a given individual may constitute merely the outward aspects of a "total process" as yet undefined does not invalidate the previous statement. Instruments of measurement—no matter how designed—can examine only that which can be manipulated by the sensory apparatus. For all practical purposes, data concerning personality are derived from the activities of the individual as he reacts to his environment. Traits, attitudes, feelings, beliefs—in fact, all of the constructs which describe personality—are apparent only insofar as some acts or movements are judged as agreeing with these constructs. This fundamental feature of personality measurement should be recognized throughout appraisals of the over-all characterization of a given person. Each individual may have his own views on this subject, but it would be flouting the principle of objectivity to ignore the primary place of behavior in personality measurement.

To be sure, psychologists have attempted to infer, from behavior, the different "dimensions" or facets which make up the personality. The very complexity and dynamic relationships which mark the human species demand some such integrated approach. From this point of view behavior becomes a vital and significant clue to personality

structure. As MacKinnon and Maslow write, "Fortunately, there are mounting signs of an integration of personality theory into the general theory of psychology. To the extent that a true rapprochement is achieved, psychology will increasingly focus its attention upon the more dynamic and more moral aspects of behavior, and in turn the various and often conflicting theories of personality development, structure, and function will be subjected to the test of rigorous scientific investigation which alone can yield the facts required for their ultimate rejection, modification, or validation."⁴

PRECISION IN MEASUREMENT

The third problem in devising personality tests is that of making the tests reliable and accurate. The scientist must "measure the instruments of measurement" for *reliability* and *validity*.

The reliability of a measuring instrument is the extent or degree to which the instrument is logically consistent within itself. Does the instrument measure without bias? The reliability of a given test may be checked in three ways: (1) The degree to which scores or standing on a test which has been repeated after a given interval may be predicted on the basis of known scores secured at the time of the first testing. By correlating scores on a test with those on a repetition of the test the investigator secures a *coefficient of reliability*. (2) The degree to which scores on an identical test may be predicted from the scores obtained on the first test. (3) The degree to which scores on odd-numbered items of a test may be predicted on the basis of scores of odd-numbered as compared with scores on even-numbered items. Reliability thus represents the correlation of a measure with itself or with another measure assumed to be similar to it.

Knowledge, understanding, and skill once attained remain relatively stable for a time, and tests designed to reveal their presence will usually yield similar results on different occasions. However, since personality factors, such as feelings, attitudes, prejudices, and modes of behavior, are more rapidly modified by experience, a repetition of the same or a comparable test would result in the measurement of personality *change* rather than in the determination of test reliability. It is for this reason that personality test coefficients of reliability are often obtained by either the split-half method or what

⁴ D. W. MacKinnon and A. H. Maslow, "Personality," in H. Helson (Ed.), *Theoretical Foundations of Psychology*, Princeton, N. J.: D. Van Nostrand Co., Inc., 1951, p. 647.

is known as the Kuder-Richardson method. On the latter basis scores secured from a single administration of a test are correlated with one another. When such a coefficient is high (.90 or above) the test is said to possess high reliability.⁵

Validity, to put it simply, is a means by which the same factor or dimension is measured by two different methods and the scores correlated. Thus far, however, validity has proved but a tautological method of affirming a measure. For if we define validity as the degree to which an instrument measures that which it is designed to measure we are left within the narrow confines of the measure itself, i.e., certain facets of personality such as extroversion, submission, etc. Nevertheless, by correlating a measure with another and different (external) measure which is assumed to be more effective (valid) we have a means of checking our instrument more precisely.

Because of the difficulties described, many test makers have turned to the practice of validating inventory items in terms of their diagnostic value in discriminating between *contrasted groups* of individuals possessing the qualities or traits being measured to the highest and lowest degrees. Subsequent subjects may be classified by this method on the basis of their reactions to questions which have been shown to be consistent in diagnosing extreme cases.

Other techniques for contributing to the validity of personality inventories include: (1) the use of the biserial coefficients of correlation in the analysis of test items and in the determination of internal consistency, (2) efforts to disguise (rationalize for the subject) test items which might appear disparaging to the individual if answered honestly, (3) the "gearing" of test items to the subject's reading level, (4) utilization of the judgment of teachers, pupils, employers, or employees (as the case may be) in the final selection of test items, and perhaps most important, (5) the original careful selection of the test items.

That progress is being made in the area of personality measure-

⁵ Francis Galton (1822-1911), generally regarded as the innovator of statistical data in psychology, wrote as follows with respect to correlation (or co-relation, as he called it): "Two variable organs are said to be co-related when the variation of the one is accompanied on the average by more or less variation of the other, and in the same direction. Thus the length of the arm is said to be co-related with that of the leg, because a person with a long arm has usually a long leg, and conversely" (Francis Galton, "Co-Relations And Their Measurement, Chiefly From Anthropometric Data," in W. Dennis, Ed., *Readings in the History of Psychology*, New York: Appleton-Century-Crofts, Inc., 1948, p. 336).

ment is attested by Zubin: "The following five areas in which recent progress has been rather rapid are described: first, the provision of methods for objectifying present-day tools; second, the provision of new tools and techniques; third, the development of the relationship between perception and personality; fourth, the development of statistical techniques for dealing with the individual case; and fifth, the development of concepts and transcending variables which will serve as constructs for the erection of new personality hypotheses and theories. Only a beginning has been made in each of these areas, but the trend seems to be in the direction of bringing closer relationships between experimental psychology, clinical psychology, and personality measurement."⁶

PERSONALITY TESTS

THE QUESTIONNAIRE

The questionnaire, as its name implies, is a prepared interview designed to evoke certain responses. The test of personality is not so narrowly conceived as, e.g., the Gallop poll or the questionnaires sent out by advertising agencies, which are intended to elicit specific reactions. In the measurement of personality the questionnaire is an instrument designed to ascertain the subject's attitude toward a particular object or situation, his store of knowledge, and the like. The test, although it may employ the question-in-answer technique, is designed more broadly and may involve materials for construction, methods of catharsis, cartoons, etc.

RATING SCALES

Although they constitute only blanks for recording judgments, rating scales have been useful in the evaluation of the social behavior of children and adults. Both self-ratings and other-person evaluations have been used in the study of personality. Since they generally call for judgments of behavior without providing the necessary specific information, such scales require the pooled estimates of more than one competent rater.

A rating scale measures what a particular investigator believes is the range of intensity of certain manifestations of personality. How-

⁶ J. Zubin, "The Problems of Quantification and Objectification in Personality: I. Introduction," *Journal of Personality*, 1948-49, 27:141-145.

ever, despite their limitations as measures of personality, investigators have secured some valuable data through the use of rating scales. Speaking of the value of such scales in personality testing, Young says,

Some [tests] combine the questionnaire and the rating scale device. Despite their inadequacies . . . they represent an earnest effort to examine more objectively . . . significant aspects of personality. Many of these questionnaires and tests may be used to produce a picture or profile of the individual. These have proved to be of great value not only in revealing the varied range of dimensions within the same individual, a point which has important theoretical implications, but as an aid to practical advice in regard to educational and vocational plans of the subject.⁷

Some rating scales have overcome the indefiniteness of such designations as *very poor*, *poor*, *average*, *good*, and *excellent* by presenting a series of descriptive statements ranging from the least to the most desirable behavior. Such statements are of considerable assistance in forming judgments of the status of the individual being rated. An early example of this technique may be seen in the Joel⁸ rating scale for preschool children, which includes a series of significant personality characteristics of children of this age. Illustrative items of the scale indicate the character of *graphic* descriptions of personality.

TABLE 4. ILLUSTRATIVE ITEMS FROM JÖEL'S BEHAVIOR MATURITY RATING SCALE

Scoring
Weight

- | | |
|---|--|
| | 8. <i>How does he face his difficulties?</i> (for example, when crossed) |
| 7 | 1. Calmly, peacefully settles difficulty without appeal to adult (or older brother, etc.). |
| 5 | 2. Makes a fuss, but settles difficulties without appeal to adult. |
| 5 | 3. Attempts to settle difficulty, but also appeals to adult. |
| 4 | 4. Does not attempt to settle difficulty; appeals to adult for help. |
| 4 | 5. Tantrum. |

⁷ Kimball Young, *Personality and Problems of Adjustment*, New York: Appleton-Century-Crofts, Inc., 1952, p. 295. Young criticizes most personality tests in respect of cultural implications; i.e., personality tests do not include the tremendous and often visible impact of a given society upon the individual.

⁸ Walther Jöel, "'Behavior Maturity' of Children of Nursery School Age," *Child Development*, 1936, 7:189-199.

9. For how long can he be absorbed in an activity?

- | | |
|---|--|
| 8 | 1. Returns to an unfinished activity of the previous day, continues and develops it. |
| 7 | 2. Pursues an activity until it is finished and is not disturbed by other attractions, but does not return to it from one day to the next. |
| 5 | 3. Stays with one activity until something more interesting comes up (goes from one constructive activity to another). |
| 3 | 4. Often interrupts a constructive activity without taking up another one. |
| 3 | 5. Shifts aimlessly about. |

From Walther Jöel, "'Behavior Maturity' of Children of Nursery School Age," *Child Development*, 1936, 7:189-199.

A more recent rating scale is the American Council Personality Rating Scale. Known also as a graphic rating scale, this instrument embodies such safeguards as are possible of attainment in this type of measuring device. A brief description at each of the points along the base line is provided for convenience in making estimates of the qualities or characteristics of personality in question. Such a procedure, when combined with the utilization of a sufficient number of judges to insure reasonable accuracy and the services of those who are well enough acquainted with the subjects to make possible valid judgments, has been found helpful in the measurement of traits and other dimensions of personality for which no objective measuring instruments are available.

Among the more promising of the attitude scales are those by Thurstone,⁹ who has experimented with the measurement of attitudes toward certain motion pictures, toward the seriousness of crime, and toward various races. He gathered judgments regarding these issues and placed them on a graduated scale from one extreme view to the other, giving statistically determined values to each statement in terms of its position on the scale. Thurstone also hit upon the idea of asking the subject not only for his one position on a scale of opinions but for the *range* of views to which he would be willing to subscribe. The mean of this span was thought to constitute a fair statement of the subject's attitude.

⁹ L. L. Thurstone, "A Scale for Measuring Attitude Toward the Movies," *Journal of Educational Research*, 1930, 22:93-94. Also, by the same author, "Influence of Motion-pictures on Children's Attitudes," *Journal of Social Psychology*, 1931, 2:291-305.

PERSONALITY INVENTORIES

Most of the early personality inventories were designed to measure an individual's status with respect to one personality trait or one aspect of adjustment (single-dimensional). Among the dimensions of personality selected for such measurement were neurotic tendency, dominance-submission, introversion-extroversion, and emotional maturity. These and other traits were ascertained from the standpoint of a continuum which extended from one extreme, such as outright extroversion, to the other, in this case pronounced introversion. The first personality inventory to be used, Woodworth's Personal Data Sheet,¹⁰ was intended to detect neurotic symptoms in soldiers drafted in World War I. Woodworth obtained his questions from a study of soldiers who were experiencing difficulty in making adequate adjustments to military conditions. The questions asked included the following: "Have you ever lost your memory for a time?" "Did you ever run away from home?" and "Did you ever have the habit of stuttering?"

Following the appearance of Woodworth's inventory, the Thurstones¹¹ developed a more refined instrument, called the Personality

Feeling of inferiority	Social adjustment	Family adjustment	Day-dreaming		Total adjustment
	0		Boys	Girls	
0	2				8
3	4				13
6	6	1	0	0	23
9 Preferred	8	4	1	1	28
12	10	7	2	3	33
15 Average	12	10	3	5	38
	14	13	4	7	43
18	16	16	5	9	48
21	18	19	6	11	53
24	20	22	7	13	58
27 Critical	22	25	8	15	63
30	24				68

FIG. 9. TABLES OF NORMS FOR THE ROGERS INVENTORY, ARRANGED SO AS TO PRESENT A CHILD'S PERSONALITY PROFILE. (FROM C. R. ROGERS, MEASURING PERSONALITY ADJUSTMENT IN CHILDREN NINE TO THIRTEEN YEARS OF AGE, NEW YORK: TEACHERS COLLEGE CONTRIBUTIONS TO EDUCATION, NO. 458, COLUMBIA UNIVERSITY, 1931.)

¹⁰ R. S. Woodworth, *The Personal Data Sheet*, Chicago: C. H. Stoelting Co., n.d.

¹¹ L. L. Thurstone and T. G. Thurstone, "A Neurotic Inventory (Personality Schedule)," *Journal of Social Psychology*, 1930, 1:3-30.

Schedule, which apparently was successful in differentiating neurotic college freshmen from more normal students of the same age. The Thurstones' Schedule included such items as, "Do you get stage fright?" "Do you worry too long over humiliating experiences?" and "Do you consider yourself a rather nervous person?" The authors reported satisfactory internal consistency and a high coefficient of reliability for this inventory. Similar results were claimed by the Allport brothers¹² for their Inventory of Ascendance-Submission, which purports to measure social dominance and submission.

MULTIDIMENSIONAL OR COMPOSITE INVENTORIES

Personality inventories of more recent origin have usually been designed to measure a number of traits or dimensions of adjustment and have been designated "multidimensional" inventories. The more prominent instruments among these are described below.

THE ROGERS ADJUSTMENT INVENTORY

This was¹³ one of the first composite personality inventories designed for use with elementary school children (ages 9-13). The inventory is adapted to measuring a child's (1) personal inferiority, (2) social maladjustment, (3) family relationships, (4) daydreaming tendency, and (5) general adjustment. Although not as objective and reliable as some later tests, the inventory has served to point out trends in the direction of maladjustment in children. It was standardized on 100 normal subjects and subsequently used to diagnose the status of problem children. The inventory is based upon an interview with the subject about his wishes, his activities, and his relations with his parents.

THE ADJUSTMENT INVENTORY¹⁴

This inventory consists of 160 items and measures the categories of adjustment to home, health, social situations, emotional upset, and occupation. The items were selected on the basis of the extent to which they discriminated between the upper and lower 15 per cent

¹² Gordon W. Allport and Floyd H. Allport, *A-S Reaction Study*, Boston: Houghton Mifflin Company, 1928.

¹³ C. R. Rogers, *Measuring Personality Adjustment in Children Nine to Thirteen Years of Age*, New York: Teachers College Contributions to Education, No. 458, Columbia University, 1931.

¹⁴ Hugh M. Bell, *The Adjustment Inventory*, Stanford, Calif.: Stanford University Press, 1934.

of individuals for whom total adjustment scores were available. Each item is answered by encircling *yes*, *no*, or *?*. Separate scores can be secured for each of the five areas of adjustment. The coefficient of reliability for the inventory as a whole is .94. There is a marked degree of independence among the five phases of adjustment. Two forms of the inventory are available, one for adults and one for high school and college students. Final scores indicate whether adjustment is excellent, good, average, unsatisfactory, or very unsatisfactory.

THE CALIFORNIA TEST OF PERSONALITY¹⁵

This test is designed to detect evidences of personal and social maladjustment, and has been published in five series—primary, elementary, intermediate, secondary, and adult—ranging from kindergarten to maturity. This inventory measures the individual's status in twelve

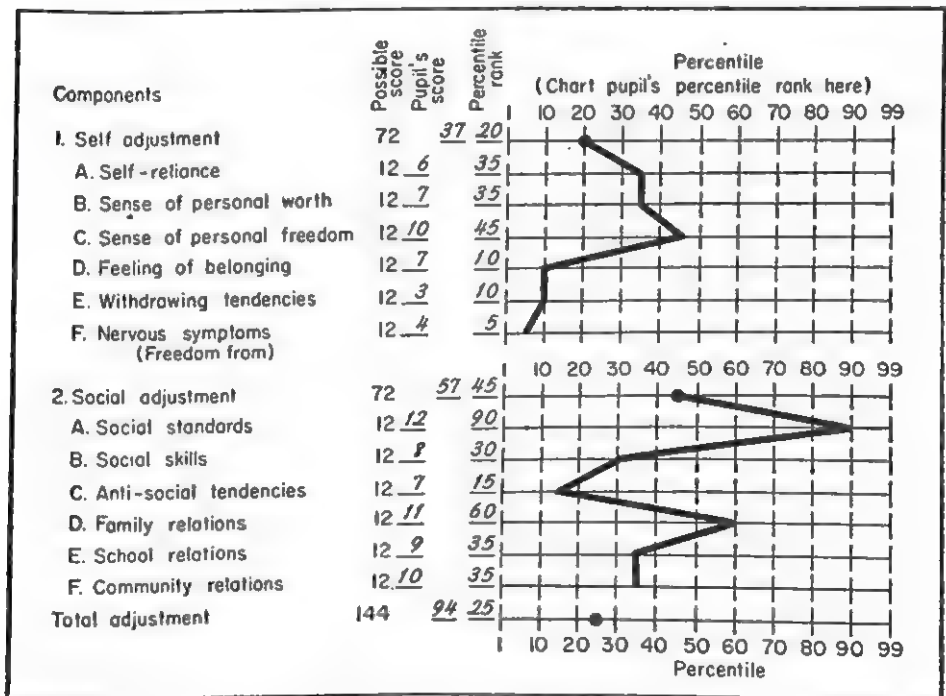


FIG. 10. A PERSONALITY PROFILE, CALIFORNIA TEST OF PERSONALITY, ELEMENTARY SERIES. (USED BY PERMISSION OF THE CALIFORNIA TEST BUREAU, LOS ANGELES.)

¹⁵ Louis P. Thorpe, Willis W. Clark, and Ernest W. Tiegs, *California Test of Personality*, Los Angeles: California Test Bureau, 1939, 1953.

areas relating to (1) *self-adjustment* (how he feels about himself) and (2) *social adjustment* (how he gets along with others), which include (a) self-reliance, sense of personal worth, sense of personal freedom, feeling of belonging, freedom from withdrawing tendencies, freedom from nervous symptoms, and (b) social standards, social skills, freedom from antisocial tendencies, family relations, school relations, and community relations. A reliability of .92 is claimed for this test, the norms of which are based upon more than 1000 adjustment situations which confront individuals at home, at school, and in a variety of other environmental circumstances. The inclusion of a profile makes it possible for counselors to note components in which a subject deviates from the norm and thus to detect areas of maladjustment in which he may need remedial measures.

THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY¹⁰

This inventory is intended as a test for use by clinicians accustomed to psychiatric descriptions of personality maladjustments. Such concepts as introversion-extroversion, neuroticism, and inferiority, so common in test usage, are primarily adapted to the needs of psychol-

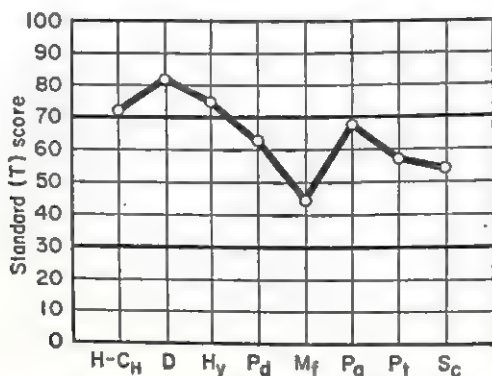


FIG. 11. A PROFILE OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY.

ogists, social workers, and others who customarily deal with certain minor maladjustments. The dimensions measured by the Multiphasic Personality Inventory are hypochondriasis, designated on the profile chart as (Hs), depression (D), hysteria (Hy), psychopathic personality

¹⁰ S. R. Hathaway and J. C. McKinley, "A Multiphasic Personality Schedule: I. Construction of the Schedule," *Journal of Psychology*, 1940, 10:249-254.

(Pd), masculinity-femininity (Mf), paranoia (Pa), psychasthenia (Pt), schizophrenia (Sc), and hypomania (Ma). These classifications of maladjustment correspond to descriptions given in textbooks in psychiatry and abnormal psychology. Although such categories designate specific forms of marked deviation in behavior, they are believed to have considerable value in the measurement of deviate tendencies in normal subjects.

THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY¹⁷

This inventory is based on factor-analysis studies of items in four previously published questionnaires dealing with certain aspects of personality. It is believed that the ten factors included in the Survey provide "comprehensive pictures of individual personalities." Each of the factors is based on a continuum (from one extreme to the other) of the traits in question. The authors have described the factors as follows:

G—general activity, or rapidity of pace, energy, and efficiency; R—restraint, or serious-mindedness, deliberation, and self-control; A—ascendance, or self-defense, persuasiveness, and being conspicuous; S—sociability, or ability to make friends, enter into conversations, and make social contacts; E—emotional stability, or evenness of moods, optimism, and composure; O—objectivity, or being "thick-skinned," free from suspicion, and nonhostile; F—friendliness, or toleration of hostile action, acceptance of domination, and respect for others; T—thoughtfulness, or reflectiveness, interest in thinking and observing of behavior in others; P—personal relations, or tolerance of people, faith in social institutions, and freedom from self-pity; and M—masculinity, or interest in masculine activities, not easily disgusted, and resistant to fear.

The 300 items of the inventory were secured from successive checks of internal consistency of the responses of 523 male and 389 female university students. Reliability coefficients for the ten factors vary from .75 to .87. Evidences of validity, based on correlation studies with criteria of adjustment in industry and elsewhere, are reported.

¹⁷ J. P. Guilford and Wayne S. Zimmerman, *The Guilford-Zimmerman Temperament Survey*, Beverly Hills, Calif.: Sheridan Supply Co., 1949. The previous inventories upon which this instrument is based are *Nebraska Personality Inventory (SEM)*, *Inventory of Factors S T D C R*, *Personnel Inventory (O Ag Co.)*, and *Inventory of Factors G A M I N*.

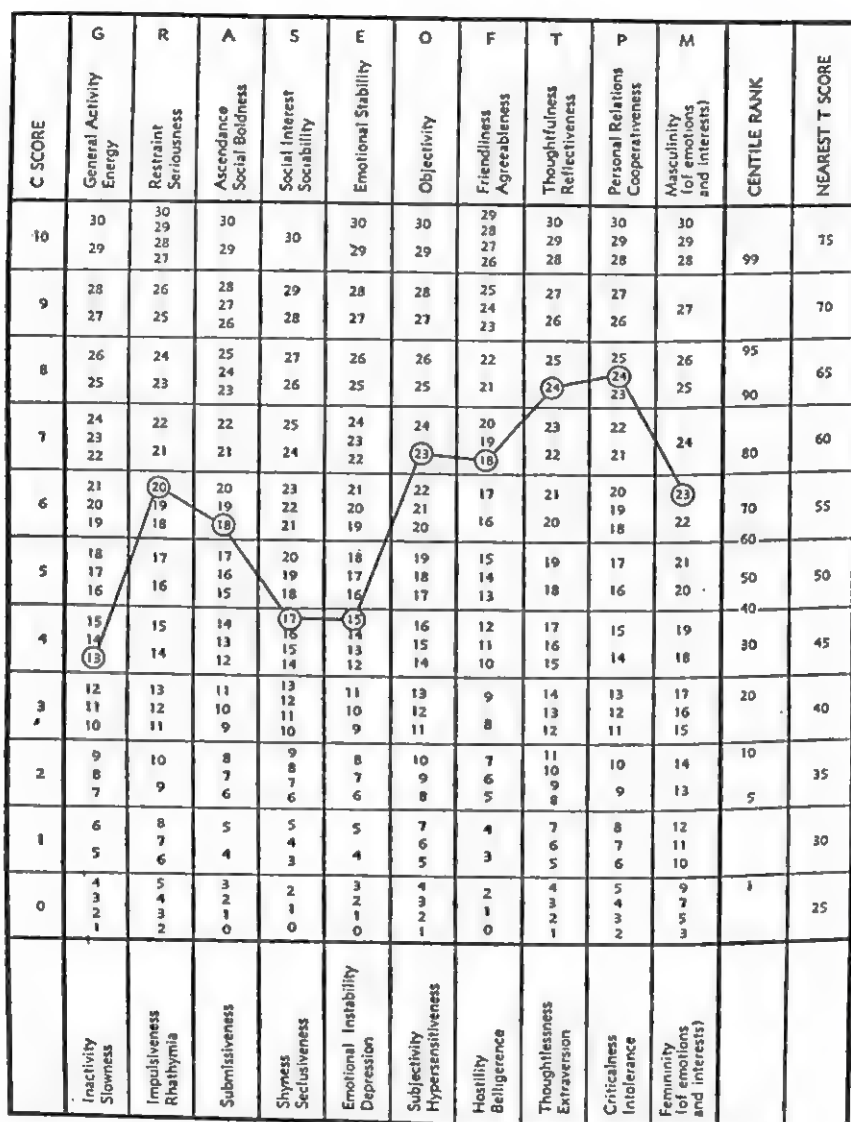


FIG. 12. A PROFILE CHART FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY. (COPYRIGHT, 1949, BY SHERIDAN SUPPLY CO., BEVERLY HILLS, CALIF.)

PROJECTIVE METHODS IN PERSONALITY
MEASUREMENT

In the vocabulary of psychology, a person is said to *project* when he ascribes his own feelings and attitudes to people or objects outside himself. It is common practice for human beings to "read into" so-called unstructured material—events, cartoons, pictures, cloud shapes—meanings that can come only from the individual's own personality. The test maker has taken advantage of this human trait by devising projective tests, in which the subject is confronted with unstructured material—pictures, situations, or inkblots that can be interpreted in a number of ways—and asked to tell what he sees there. His answers are believed to project into the pictures or situations or inkblots features of his own personality pattern. Or the subject may be asked to project his personality into still less pre-structured objects by drawing, carving, performing, or otherwise structuring unshaped materials.

Such projective tests are said to have the signal advantage of leading a person to reveal immeasurably more of his inner personality pattern than he would if confronted with a set of direct questions calling for a judgment of his own feelings and of a kind likely to raise barriers to truthful responses.

Numerous instruments for evaluating personality have been evolved which employ this method of stimulating the individual to project his innermost feelings and dynamisms. The interpretations made vary according to the frame of reference utilized by the observer. The subject's repertory of tensions, anxieties, and attitudes is analyzed in terms of certain prior criteria.

The projective method is a means for describing the individual's pattern of personality on the basis of his responses to stimuli (presented as unfinished sentences, imperfect cartoons, meaningful patterns, ink blots, etc.). Clinical psychology has accepted the dictum that to ascertain the presence of a personality disorder one first must gain insight into the complex of causes conducive to such a disorder. One of the major claims made by the protagonists of the projective method is that in reacting to given stimuli (the various tests) the individual discloses at least a partial explanation of his behavior.

In projecting himself the individual for the time being "forgets" the conventional pose which he generally assumes and thus reveals his true "self." The clinician who utilizes the projective technique

makes his own inferences from the results or the testing. This is an important distinction in that we are dealing with a qualitative, not a quantitative, technique. It assumes that an "inner self" of some kind exists which can be measured and analyzed.¹⁸

Clinicians who have accepted the projective method of personality analysis maintain that behavior varies and that emotionally disturbed as well as adjusted subjects conceal many of their basic tendencies and desires in conforming to the mores of their society.

THE RORSCHACH TEST¹⁹

This is probably the most widely utilized of the projective instruments. In the Rorschach ink-blot test, first presented in 1921 by the Swiss psychiatrist, Hermann Rorschach, the subject is shown a series of symmetrical ink blots and asked to indicate what he sees in them. Norms have been derived from numerous individual reports, and responses which are rarely given are considered deviant. In his early work with mental patients Rorschach was impressed above all with one feature of his test: the consistent relationship of certain responses to the ink blots to given types of personality disorder.

Following a number of carefully conducted observations involving the administration of some 200 blots, Rorschach standardized his ink-blot cards. Some of the cards emphasize shape or form, others are more harmonious in design, and still others feature gray or red colors. Rorschach concentrated upon vague (unstructured) design in all of his cards. The Rorschach test seeks to single out the dynamic factors which underlie an emotional disturbance.

Those who see behavior as the first datum of a science of psychology find it difficult to place confidence in such judgments. Witness, for example, Skinner's description of behavior as contrasted with that assumed in the Rorschach ink-blot test. By behavior, Skinner states, "I mean simply the movement of an organism or of its parts in a frame of reference provided by the organism itself or by various external objects or fields of force."²⁰ A formulation such as Skinner's studiously avoids just such factors as the Rorschach test purports to

¹⁸ For a discussion of this issue, see W. S. Kogan and R. M. Hamlin, "Objectification in Rorschach Interpretation," *Journal of Personality*, 1947-48, 17:177-181.

¹⁹ Hermann Rorschach, *Psychodiagnostics: A Diagnostic Test Based on Perception*, 3rd ed., Bern: A. Huber, 1942. Translated by Paul Lemken and Bernard Kronenberg.

²⁰ B. F. Skinner, *The Behavior of Organisms*, New York: Appleton-Century-Crofts, Inc., 1938, p. 6.

measure. Motivation and affect, viz., the hopes, anxieties, and tensions of the individual, are the data which the projective technique seeks. It was Rorschach's observation of a relationship between reactions to the ink-blots and type of mental disorder which led him to standardize the test. This individual tone to behavior is, to quote

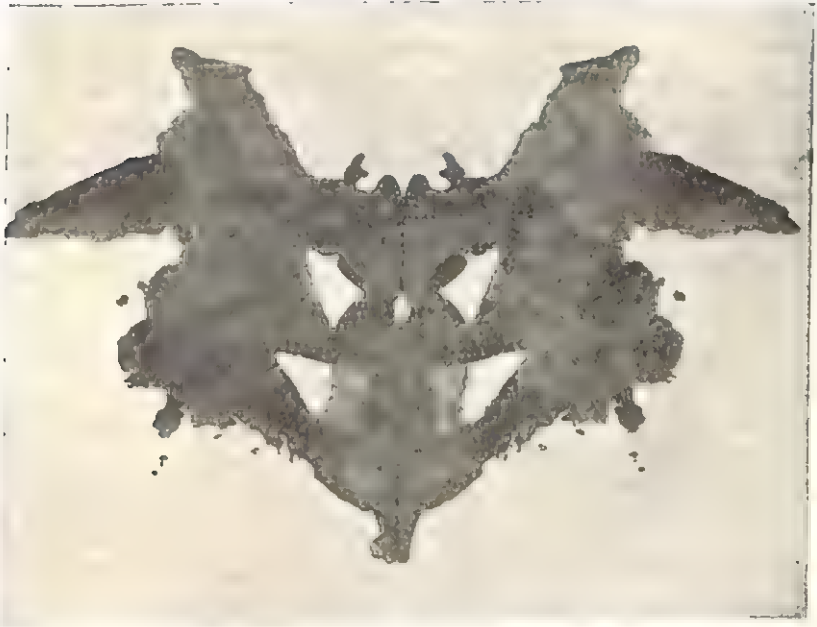


FIG. 13. A SAMPLE INK BLOT FROM THE RORSCHACH TEST.

Roback, "in itself . . . a significant datum which should make us pause ere we insist on being right in our observations."²¹ Whereas the Rorschach test bases its claim upon inferences of *motivated* behavior, Skinner prefers to diagnose behavior through observation of the S-R situation alone.

If one concedes the validity of the projective method, viz., that "inner" dynamically related tendencies and attitudes are discernible and can be measured, then the following claims for the Rorschach test are both intelligible and justified: "The method (Rorschach test) . . . does not content itself merely with isolating specific mental processes. It departs from traditional concepts by emphasizing that such processes are to be understood in terms of their interplay, each

²¹ A. A. Roback, *Personality*, Cambridge, Mass.: Sci-Art Publishers, 1950, p. 258.

upon the other, and the degree of balance and equilibrium attained. It, therefore, differentiates 'Erlebnistypen' or 'experience types,' as they are sometimes called, in terms of the respective roles which the inner forces (introvertive trends) and outer forces (extratensive trends) play in the personality structure. The personality of the individual stands before the Rorschach investigator, illuminated by the extent to which such factors motivate or repress the individual in the quest for personal and social adjustment."²²

Clinicians have found that whereas some responses to the ink blots indicate a tendency toward being a "conformist," others point to emotional tensions, repressions, and unfulfilled needs. Rorschach psychologists believe that the individual's interpretations reveal his psychological structure as a whole, including dynamically related emotions and attitudes. That the method will work with children has been claimed by a number of clinicians,²³ some of whom have established norms for children of preschool level.²⁴ Rorschach testers believe they can interpret subjective responses in such a way as to harmonize with other clinical evidence (validity). A recent and apparently successful effort has been made to quantify the scoring of the Rorschach test by the weighting of responses.²⁵ When means for total weighted responses are calculated, it is found that the various categories (psychoneurosis, psychopathic personality, brain injury, schizophrenia, etc.) arrange themselves on levels based on a progressive increase in scores.

THE THEMATIC APPERCEPTION TEST

In this test the subject is shown ten or twenty pictures (depending on the nature of the individual being tested) each of which presents people in vague situations. Because these pictures suggest traumatic situations, i.e., those which challenges the individual, it is believed that the subject will reveal his "inner action picture" in his responses. The characters in the pictures are drawn with purposely vague line-

²² Margaret G. Hertz, "The Rorschach Method and Its Significance in the Mental Hygiene Program," in P. L. Harriman (Ed.), *Twentieth Century Psychology*, New York: Philosophical Library, Inc., 1946, p. 655.

²³ R. Horowitz and L. B. Murphy, "Projection Methods in the Psychological Study of Children," *Journal of Experimental Education*, 1938, 7:133-140.

²⁴ Bruno Klopfer, "Personality Diagnosis in Early Childhood: The Application of the Rorschach Method at the Preschool Level," in *Report of Meeting of Eastern Psychological Association*, April, 1939.

²⁵ Charlotte Buhler, Karl Buhler, and D. Welty Lefever, *Development of the Basic Rorschach Score*, Beverly Hills, Calif.: Western Psychological Services, 1948.



FIG. 14. A SAMPLE CARD FROM THE THEMATIC APPERCEPTION TEST. (USED BY PERMISSION OF HENRY A. MURRAY.)

ments and clothing. It is assumed that the subject projects his true feelings about himself in describing the pictures. His likes and dislikes, his hostilities or anxieties, are projected in his reactions to the pictures.²⁶ The subject is led to identify himself with this or that character depicted and thus to reveal his own fantasies, wishes, conflicts, repressed desires, etc.

THE PICTURE-FRUSTRATION STUDY²⁷

This instrument, devised by Rosenzweig, bears as its complete name The Picture Association Study for Assessing Reactions to Frustration. It is designed to reveal *patterns* of reaction to daily conflicts.



FIG. 15. A SAMPLE ITEM FROM THE PICTURE-FRUSTRATION STUDY. (COPYRIGHT, 1948, BY SAUL ROSENZWEIG. USED BY PERMISSION.)

The materials in the test are composed of twenty-four cartoon-like pictures, each portraying two individuals involved in a mildly frus-

²⁶ E. E. Fleming and S. Rosenzweig, "Apperceptive Norms for the Thematic Apperception Test: I. The Problem of Norms in Projective Method," *Journal of Personality*, 1948-49, 17:475-482. See also, by the same authors, "Apperceptive Norms for the Thematic Apperception Test: II. An Empirical Investigation," *Journal of Personality*, 1948-49, 17:483-503.

²⁷ S. Rosenzweig, "The Picture-Association Method and Its Application in a Study of Reactions to Frustration," *Journal of Personality*, 1945, 14:13-23.

trating but not uncommon situation. Facial features and other expressions of personality are purposely deleted from all of the pictures. The subject is requested to analyze the obvious frustration in the situation and to write the first appropriate reply to it which occurs to him. In each picture an individual is shown saying certain words which either describe the frustration experienced by the other individual or which in themselves actually frustrate him.

The situations in the P-F test may be divided into two major types: ego-blocking and superego-blocking. *Ego-blocking* situations are those in which some barrier (personal or impersonal) interrupts, disappoints, deprives, or otherwise directly frustrates the subject. *Superego-blocking* situations are those in which the subject is accused or charged by another person with some misdeed. A link between the two types of situations is seen in the fact that the occurrence of ego-blocking is implied in superego-blocking. In his reactions to these situations it is assumed that the subject unconsciously or consciously identifies himself with the frustrated individual and thus projects his own prejudices by describing the various plights pictured. To determine the subject's bias, scores are assigned each response as to both *direction of aggression* and *reaction type*.²⁸ Recently there has been developed a children's version of the P-F test which is considered to be as effective as the adult form.

THE TRAVIS-JOHNSTON PROJECTION TEST²⁹

This is a test designed to examine child-parent relationships, or more closely, the dynamics of a family constellation from the viewpoint of the child himself. It seeks to bring to the surface for analysis the inner psychological world of the child, as well as the specific means by which he adjusts to his limited environment.

In the test the child is asked for his reactions to persons, situations, relationships, and responses as given in forty-four freehand drawings. The drawings depict adults and children of both sexes in different situations and relationships involving chiefly important and potentially difficult areas in the socialization of the child. The areas examined are sibling rivalry, child-parent jealousy, discipline, eating,

²⁸ R. P. Falls and R. B. Blake, "A Quantitative Analysis of the Picture-Frustration Study," *Journal of Personality*, 1947-48, 16:320-325.

²⁹ Lee E. Travis and Joseph J. Johnston, *The Travis-Johnston Projection Test*, Glendale, Calif.: Griffin-Patterson Co., 1949.



FIG. 16. A SAMPLE CARD FROM THE TRAVIS-JOHNSTON PROJECTION TEST. (USED BY PERMISSION OF LEE E. TRAVIS AND JOSEPH J. JOHNSTON.)

toilet training, sexual development, and cleanliness. There is a separate set of pictures for boys and girls.

The T-J test possesses two unique aspects: (1) the structuring of age, sex activity, combinations of characters, and objects; and (2) the structuring of areas of adjustment. These two features of the test are regarded as providing it with considerable face validity, as well as enabling the clinician to note the probable dynamics of the child's behavior. Preliminary investigation utilizing some 200 children has already shown that the test can be of value in (1) the enrichment of case-history study, (2) the preliminary exploration of the dynamics and mechanisms of child personality, (3) the determination of especially troublesome areas of behavior, and (4) as a guide both in the direction and depth of the therapy to be employed.

CONCEPT-FORMATION TESTS

These are designed to investigate the subject's "grasping-hold" of certain meaningful relationships. Concept formation implies that the subject has seen materials which actually exist and not those he believes may exist among the objects of his perception. If his reactions are distorted, i.e., he does not grasp the essential unity of certain defined situations, the investigator can, it is claimed, to a degree ascertain the nature of his disorder.

Among the concept formation tests are the Sorting Test and the Hanfmann-Kasanin Block Test.³⁰ In the first instrument, the subject is given seven objects (hammer, pliers, screwdriver, etc.) one at a time, and told to put with each one all that "logically" goes with that tool (there are thirty-three objects relating to the different tools before the subject). The subject is also asked to define groups of objects in terms of use, color, form, material, and the existence of pairs. The test has been of value as a diagnostic instrument in cases of brain trauma involving disturbance of concept formation. It has also been of help in the prognosis of shock therapy.

In the Hanfmann-Kasanin Test the subject is confronted with twenty-two small blocks, which are of six different shapes, two different heights, two different general widths, and painted in two different

³⁰ E. Hanfmann and J. S. Kasanin, "An Experimental Study of Concept Formation in Schizophrenia: I. Quantitative Analysis of the Results," *American Journal of Psychiatry*, 1937, 95:35-48.

colors. He is asked to divide these blocks into four consistent kinds, i.e., consistent in terms of belonging together. This device has been employed in ascertaining the concept formation status of schizophrenic subjects. For example, although psychotic subjects usually behave as though they comprehend the test instructions, their reactions demonstrate that they do not. Although compulsive subjects



FIG. 17. THE HANFMANN-KASANIN BLOCK TEST.
(FROM SUZANNE REICHARD AND D. RAPAPORT, "THE
ROLE OF TESTING CONCEPT FORMATION IN CLINICAL
PSYCHOLOGICAL WORK," BULLETIN OF THE MENNINGER
CLINIC, 1943, 7:99-105.)

generally recognize the height and width principles in a few minutes, persons with anxiety neurosis are inclined to distribute one of each form and/or one color in a group. Thus the H-K test indicates how adequately the subject can adjust when confronted with comparatively new objects which are to be put together in terms of meaningful relationships. In other words, the subject's adjustment repertory is tested by his grasp of organizing principles.

WORD ASSOCIATION TESTS

By these tests an individual's responses are elicited to words which have acquired an emotional charge in the course of his experience. Hesitations and affective reactions to particular words in such lists are noted and interpreted in the light of the subject's other personality traits. The two word lists, one for clinical use and the other for laboratory experimentation, developed by Wilson³¹ as an improvement over earlier lists by Jung and by Kent-Rosanoff, appear to be the most adequately constructed instrument in this field. Such lists are designed to yield scores for the uniqueness of association processes among both children and adults.

ART ANALYSIS METHODS

Because it is believed that emotional tensions are released through the creation of artistic productions, tests have been designed which utilize the subject's creativity in this respect.

Children seem to find satisfying emotional outlets in uninhibited experiences with paint. It is believed that such release serves as a catharsis in the case of children characterized by conflicts and repressions. Emotionally charged reactions are also said to reveal incipient personality disorders, thereby making possible the selection of appropriate remedial measures.

THE FREE-PLAY METHOD

The child is presented with toys or puppets upon which he projects his conflicts or desires when these are sufficiently intense to call for release. Dolls to which the child has given the names of certain members of his family have in some instances evoked spanking, kicking, crushing, and other emotion-laden reactions.

In a study³² of the attitudes and interests of 23 kindergarten and 20 fourth-grade children by way of the play-interview technique, the children responded to the interview with fantasies told in story or drama form. The attitudes and interests revealed in their responses to the toys (e.g., figures, animals, and fish) indicated that the children were concerned with fantasies relating to war, illness, death, and

³¹ Donald P. Wilson, "An Extension and Evaluation of Association Word Lists," Doctoral Dissertation, University of Southern California, 1943.

³² R. W. Howard, "Fantasy and the Play Interview," *Character and Personality*, 1944-45, 13:152-165.

superstition. The investigator concluded: "The amount and quality of fantasy material given spontaneously by the children of both age groups indicate that the play interview is an effective technique for uncovering attitudes and interests of young children."³³

Levy³⁴ has reported that children of the Quekchi Indians in Guatemala and the Pilaga Indians in Argentina show hostility and rivalry when permitted to play with dolls representing a mother or competing siblings. It is probable that children in all cultures feel the impact of rivalries and loss of parental preferment and experience a certain amount of release from projecting their hostility onto representations of persons who appear to be frustrating them.

The values of free play are believed to include (1) a better understanding of the child, (2) the establishment of a working relationship, (3) breaking through the child's defenses against anxiety, (4) enabling the child to verbalize his feelings, (5) helping the child to reduce his tensions by living out his hostility, and (6) developing play interests which can be carried over into later life.³⁵

It should be emphasized once again that projective tests are qualitative in nature. It is this characteristic which distinguishes them. Since these tests are intensely subjective, in their case precise measurement such as we have come to expect from other psychological measures is not realizable. This situation has brought projective tests into disrepute among quantitative-minded psychologists who insist on meticulous accuracy in measurement. However, there is much to be said in defense of the projective method of diagnosis or measurement. Psychology must consider the individual, and "individual" is a term which goes hand in hand with variation. In view of the countless variations in individual responses, it is difficult to understand how, in the measurement of personality, one can insist upon objective measurement alone. As Roback reminds us:

What concerns us is the fact that the quantitative application of tests is not superior to the interpretative evaluation of human responses. They are complementary to one another. Measurements

³³ *Ibid.*

³⁴ David M. Levy, "Sibling Rivalry Studies in Children of Primitive Groups," *American Journal of Orthopsychiatry*, 1939, 9:205-214.

³⁵ F. Amster, "Differential Use of Play in the Treatment of Young Children," *American Journal of Orthopsychiatry*, 1943, 13:62-69. See also Clark E. Maustakas, *Children in Play Therapy*, New York: McGraw-Hill Book Company, Inc., 1953, Chaps. 4, 5.

in terms of scores have their place and so have the projective techniques. It is a mistake for the statistician to turn up his nose at the projective tester, who is dealing with *qualities* rather than *quantities*. The figures may be absolutely correct, and yet the information gained may be negligible or even worthless, depending upon what postulates were taken for granted in the original investigation, even assuming that the statistical formulas are unexceptionable.³⁶

THE DIRECT OBSERVATION OF OVERT BEHAVIOR

The direct approach to the appraisal of personality entails a variety of problems of technique, both theoretical and practical. How can the individual's total personality be measured in concrete, lifelike situations? How can permanent records of spontaneous behavior be secured? What can we do to keep concrete testing situations below the threshold of the subject's recognition? How can we avoid the artificiality and irrelevancy of laboratory situations? In endeavoring to answer these questions, we can perhaps do no better than offer a short résumé of the work of Hartshorne and May in connection with the Character Education Inquiry.³⁷ Other investigators have made contributions to the solution of these problems, but since the results emerging from the above inquiry are comprehensive in scope, we shall illustrate the techniques involved by reference to them.

These advocates of specificity of behavior dispensed with the notion that traits are constant unified entities of personality and proceeded to measure the functioning individual by the process of extensive samplings of behavior, at whatever stage of maturity he may have reached. By securing batteries of actual samplings of conduct from various areas of personality (in this instance character) organization and by viewing these as a whole, it was believed that a pattern of behavior was established.³⁸

³⁶ A. A. Roback, *op. cit.*, p. 263. Roback's criticism is particularly significant in the realm of personality testing. All tests are based upon a groundwork of beliefs. That which is evolved is a reflection of these beliefs. Because of its unique nature personality is especially vulnerable here. Thus one of the chief problems in testing personality is an adequate frame of postulates by which to interpret the data secured.

³⁷ For a more detailed account of the researches of Hugh Hartshorne and Mark A. May, see Chapter 8 of this book.

³⁸ Hugh Hartshorne and Mark A. May, *Studies in the Organization of Character*, New York: The Macmillan Company, 1930, p. 363.

An idea of the care which was exercised in an effort to solve the problems involved may be gathered from a statement of the criteria chosen for the conduct of direct testing:

1. The test situation should be a lifelike one as well as one adequately controlled.
2. The test situation should be such as to allow all subjects equal opportunity to exhibit the behavior being tested.
3. No test should subject the individual to a moral strain.
4. The test should not put the subject and the examiner in a deceptive relation to each other.
5. The test should have "low visibility," i.e., it should be such as not to arouse suspicion.
6. The activity demanded by the test should have real value for the subject whether or not he is aware of it.
7. The test should be of such a nature as not to be invalidated by publicity.
8. For a statistical study, the tests should be group tests. They should be easy to administer and mechanically scored.
9. The test results should be clear and unambiguous, and there should be no uncertainty as to the presence of the trait being measured.
10. Test scores should be quantitative, showing the amount, as well as the fact, of deception.³⁹

Although Hartshorne and May carried the direct behavior-sampling idea to its fruition as a scientific tool, it should not be supposed that the technique was originated by them. As early as 1921, Voelker,⁴⁰ in a boy-scout training experiment, developed an original battery of behavioral situations designed to test the functioning of concrete scout ideals. He tested a boy's willingness to accept a tip, for example, by arranging to have someone offer him one and note the reaction. Likewise, he determined a boy scout's tendency to return lost articles by arranging to have him find an item of value without knowing that he was being observed.

MEASURES OF DECEIT

Others, notably Cady⁴¹ and Raubenheimer,⁴² have amplified these

³⁹ Hugh Hartshorne and Mark A. May, *Studies in Deceit*, New York: The Macmillan Company, 1928, pp. 47-48.

⁴⁰ P. F. Voelker, *The Function of Ideals in Social Education*, New York: Teachers College Contributions to Education, No. 112, 1921.

⁴¹ V. M. Cady, "The Estimate of Juvenile Incorrigeability," *Journal of Delinquency Monographs*, No. 2, 1923.

⁴² A. S. Raubenheimer, "An Experimental Study of Some Behavior Tests of the Potentially Delinquent Boy," *Psychology Monographs*, Vol. 34, No. 159, 1925.

methods in various ways, but Hartshorne and May have made the most use of them. In their extensive survey of honesty behavior, they sampled a variety of unguarded life situations involving particularly opportunities for cheating, stealing, and lying. With respect to *cheating*, the children studied were placed in controlled situations in which they might cheat on examination papers without realizing that they were being detected, where they could cheat on a circle-checking study by peeking (indicated by successes that are statistically very remote), where they could cheat by making overstatements as to what they knew or could do (checked by giving the children actual tests), where they could cheat in athletic contests by misrepresenting their achievements, and where they had an opportunity to cheat in playing parlor games.

The *stealing* type of deception was measured by "planting" a dime in each of a number of puzzle boxes and noting which children actually took pains to return the dime with the box, by the coin-counting test in which children were requested to return a box of coins after having counted them and recorded the results on a mimeographed sheet, and by party games in which dimes were placed in children's hands without their knowing that they were being watched to see whether or not they returned them.

Lying was detected by paper-and-pencil tests designed to measure (1) lying to avoid disapproval, and (2) lying to win approval. With respect to the first type of test, children were asked whether they had ever cheated on previous tests. An index of lying was made possible by comparing the answers given with known results on previous tests of cheating. Lying to win approval was detected by asking a series of questions concerning "specific acts of conduct which on the whole have rather wide-spread social approval, but which at the same time are rarely done." Such questions included:

2. Did you ever act greedily by taking more than your share of anything? Yes—No
3. Did you ever blame anyone else for something you had done when you knew all the time it was you? Yes—No
8. Have you ever disobeyed any law of your country or any rule of your school? Yes—No⁴³

⁴³ Hugh Hartshorne and Mark A. May, *Studies in Deceit*, New York: The Macmillan Company, 1928, p. 98.

These questions are such that "The child who could answer thirty-six truthfully would be a pious fraud." The validity of the questions was established by administering them to a graduate class in educational psychology, the members of which were interested in the moral aspects of education.

MEASURES OF SERVICE, COOPERATION, AND OTHER CHARACTER TRAITS

A variety of character attributes other than honesty-deceit were studied by the Character Education Inquiry investigators.⁴⁴ *Service* in the form of helpfulness, cooperation, self-denial, charity, etc., was measured by such devices as the Self-or-Class Test, the Money Voting Test, and the Envelopes Test. In the Self-or-Class Test spelling prizes were to be given to both class and individual winners. Each child was called upon to decide whether he would compete for personal honor or for the good of the group. In the Money Voting Test the pupils were required to decide whether to vote prize money to the individual who stood highest in the spelling contest, to the school for decorations or athletic equipment, or to some orphanage or sick child. In the Envelopes Test each child was given four envelopes with the request that he take them home and fill them with jokes, interesting pictures, and stories for distribution to hospital children.

The trait called *inhibition* was measured first by a Story Inhibition Test in which an exciting story was read by the teacher up to the climax, at which point each child was given his choice of writing on the back of the story sheet (which he was holding) how he thought the story was coming out, or if he must, breaking open a previously pasted folder to ascertain the actual ending of the story. A Safe Manipulation Test, in which each child was given a toy safe with instructions not to touch it until later when he would be given an opportunity to try to open it, also was given. In the meantime, a series of paper-and-pencil tests was administered to consume time and thus test the child's resistance to temptation.

Any dial changes made on the safes were noted by the teacher. A third device, the Puzzle Manipulation Test, consisted of a box in which five small puzzles were arranged on a puzzle-peg board in such a way that any rearrangement of them could be recognized at a later

⁴⁴ Hugh Hartshorne and Mark A. May, *Studies in Service and Self-Control*, New York: The Macmillan Company, 1929.

inspection. As in the preceding test, the children were given these boxes with directions not to disturb them while certain paper-and-pencil tests were being taken.

Persistence was measured for the most part by checking the length of time a child would continue with the task of solving puzzles. Among the puzzles used was the Magic Square, which required the subject to arrange numbers in blocks in such a way as to come out with a certain sum, and the Japanese Cross consisting of some wooden sticks which were to be fitted into the form of a cross. These, as well as the other Character Education Inquiry tests, enjoy fairly high reliability coefficients. They were found to be effective in eliciting substantial cross-section samplings of the detailed responses which go to make up a reliable representation of the status of the "traits" under examination.

REVIEW OF MEASUREMENT OF CONDUCT

This brief discussion should serve to depict the involvements of the direct approach to the measurement of personality. But the conclusion seems inevitable that the very characteristic (specificity of behavior) which calls for this technique makes such testing impractical unless sufficient samplings are secured to provide statistically reliable representations of the kinds of behavior being measured. In view of the unlikelihood that general traits exist in any functional sense, and in the light of the apparent fact that knowledge of an individual's general status as to organization of personality tells us little regarding how he will respond in a situation in which he is ego-involved, we can see that the problem of the direct measurement of personality is a complicated one.

Yet the direct conduct-testing approach as exemplified in the extensive researches to which reference has been made obviously is a logical method of attack. It may not often be feasible from the standpoint of available skill, equipment, and financial resource, but it is the one method which can be made to sample specific conduct in a sufficiently wide variety of concrete situations to provide a reasonably satisfactory composite portrait of the status of a subject with respect to a given trait (area of behavior).

The direct approach in measurement permits the study of specific examples of conduct in the light of the situational circumstances which elicit them and with reference to the facts which condition

their expression. It takes cognizance of moral considerations, but considers the reactions of children in terms of their tendency to circumvent cramping moral endorsements when directly blocked in their search for psychological satisfactions.

Because of its instrumental attack on the problem, the direct approach has been said to be superficially mechanistic and to neglect the "psychological warp and woof" of specific trait actions—"their *genetic motives*." But through it all we can see that the conduct-sampling method of measuring the components of personality strikes at the heart of the problem and that although it may not satisfy conventional theories of the organization of personality, it has opened up an understanding of the antecedents of certain forms of behavior which bids fair to chart the way to a much more intelligent program of education than previously has been conducted.

OTHER AVENUES FOR APPRAISING PERSONALITY

THE INTERVIEW

In formal types of interview the subject is questioned directly and is put through a testing procedure the nature of which depends upon the type of information the interviewer is seeking. This procedure is particularly useful in job placement, in hospitals, in schools—in fact, wherever the individual comes in contact with an institution. The rationale for the interview appears to be the belief that with the conversational situation as background, the individual himself is the best source of data regarding personality. Garrett sums up the matter as follows: "The obvious fact about interviewing is that it involves communication between two people. It might be called professional conversation. Special problems confront both interviewer and interviewee. We begin to obtain some notion of the complexities involved if we recall some of the feelings we ourselves have had while on the way to be interviewed. For an interview to be successful the diverse fears of both interviewer and interviewee must be allayed, and the diverse desires of both must be met. Rapport must be established between the two, a relationship that will enable the interviewer to be most effective in helping him." ⁴⁵

⁴⁵ A. Garrett, *Interviewing: Its Principles and Methods*, New York: Family Service Association of America, 1942, pp. 8-9.

The informal interview is one in which information is obtained indirectly during the course of a conversation. Since as a rule the interviewer is proceeding along certain lines, the individual being interviewed is indirectly led into discussing certain subjects suggested by the interviewer. In attempting to win the individual's confidence the interviewer stays on general topics concerning which it is hoped information will "leak out" during the course of the conversation.

NONDIRECTIVE TECHNIQUE

In recent years the psychologist Carl R. Rogers has popularized another type of interview, one which he characterizes as "client-centered." Dispensing with such standard interview techniques as advice or suggestion, Rogers places his emphasis instead upon the subject himself. He writes as follows:

The newer approach differs from the older one in that it has a genuinely different goal. It aims directly toward the greater independence and integration of the individual rather than hoping such results will accrue if the counselor assists in solving the problem. The individual and not the problem is the focus. The aim is not to solve one particular problem, but to assist the individual to *grow*, so that he can cope with the present problem and with later problems in a better-integrated fashion. If he can gain enough integration to handle one problem in more independent, more responsible, less confused, better-organized ways, then he will also handle new problems in that manner.⁴⁶

The aim in such a method is to assist the subject in becoming integrated with reference to all of his activities rather than to deal with one aspect of his behavior. The technique of "nondirection" is a counseling measure in its fullest application. It is Rogers' thesis that best results can be accomplished by permitting the subject, rather than the counselor, to "pattern" the interview. It is reasoned that if a permissive atmosphere is encouraged during the interview the subject will tend to reveal the deeper aspects of whatever frustrations or conflicts are disturbing him. In addition, the interview is not to be predetermined by suggestive questions, because such questions are influenced to a degree by the counselor's own biases.

⁴⁶ Carl R. Rogers, *Counseling and Psychotherapy*, Boston: Houghton Mifflin Company, 1942, p. 28. See also, by the same author, *Client-Centered Therapy*, Boston: Houghton Mifflin Company, 1951.

Rogers maintains that his method recognizes more fully than others the fundamental role of emotion in the situations which confront the disturbed individual. He writes, "For the first time this approach lays stress upon the therapeutic relationship itself as a growth experience."⁴⁷

It is, however, difficult to envision how this technique avoids some prejudgment of the subject. Every interviewer brings to the counseling situation a frame of reference by which he evaluates the data secured. In fact, no one is wholly free of a priori commitments—distasteful as this thought may be to some. Even though the subject in a counseling situation speaks freely, the manner in which his statements are interpreted may do much to change the course of what he subsequently will say.⁴⁸ As Thorne writes, "Nondirective methods of psychotherapy constitute a valuable new technical tool for use in appropriate clinical situations, but they are definitely not the complete answer to all therapeutic problems even in mild personality disorders."⁴⁹

THE LIFE-HISTORY METHOD

This is defined as "a verbal technique for comprehensively representing a concrete person."⁵⁰ Polanski has presented five distinct modes of writing life histories.

1. *Structural analysis* is defined as a method of treating personality in terms of "a pattern of traits, attitudes, interests, and physical characteristics" so that an organized structure can be derived. Since the primary feature of the procedure is the establishment of the desired personality structure, the subject's relationships to other people are underscored.

2. *Cultural presentation* is a technique by which the individual is represented "in terms of his interpersonal relationships, in the

⁴⁷ *Ibid.*, p. 30.

⁴⁸ Garrett makes this criticism: "There is . . . danger in allowing the client undirected expression of his feelings. They may be due not to a recent upsetting experience but to a long chain of experiences going back into the remote past. These early experiences may have become twisted and distorted and inter-related with other things through the years so that mere talking does not bring relief. His need to talk may not be occasional but constant, and if the interviewer encourages too much release of feeling, areas may be opened up with which both interviewer and client are unequipped to cope" (A. Garrett, *op. cit.*, p. 35).

⁴⁹ F. C. Thorne, "A Critique of Nondirective Methods of Psychotherapy," *Journal of Abnormal and Social Psychology*, 1944, 39:459-471.

⁵⁰ N. A. Polanski, "How Shall a Life-History Be Written?" *Character and Personality*, 1940-41, 9:188-207.

midst of the push and pull of the social forces which surround him." Here the aim is to appraise personality principally in terms of social influences (the biosocial approach), whereas the structural analysis would be in terms of the biophysical view.

3. *Genetic presentation* involves the factor of heredity, as well as historical data in connection with which no systematic viewpoint is brought out. It represents an attempt to evaluate personality in terms of genetics.

4. *The major maladjustment* refers to "that conflict, neurotic symptom or traumatic experience which by virtue of its existence has most interfered (or is interfering) with the individual's personal adjustment." The concentration is upon the disturbance per se and secondly upon the way in which the disturbance affects the individual's personality.

5. *The method of individual differences: psychometrics* is directed toward ascertaining "just how much the lists of raw scores frequently found in case studies actually contribute to our understanding of the subject. . . ." It is reasoned that through clarifying the nature of the test data (and the variables tested) given the subject, there will emerge a pattern of personality that can be compared with the population as a whole.

In his investigation of these procedures in the evaluation of personality Polansky asked 36 judges for their opinions concerning best methods. Their answers led this author to conclude that "to insure a measure of predictive success a life history should be written from the standpoint of the total pattern of the given individual."⁵¹

As a technique which seeks to appraise the individual in terms of his over-all pattern, the life-history method—no matter how considered—has few peers. Social workers for decades have used this approach in one form or another. Stated simply, in this procedure the investigator records in detail all that he can learn about the subject.

SUMMARY

This chapter emphasizes the need for precision in the instruments to be employed in measuring the facets of personality. In fact, the disciplines concerned with personality have long recognized the value of scientific procedure, a procedure upon which they rest their own

⁵¹ *Ibid.*

special case. However, as has been noted, "personality is in large part a qualitative concept,"—a dictum with which most students of the subject agree, despite the fact that certain of them insist upon a formal quantitative approach here as elsewhere.

That the ideal of objective measurement so appropriate in the physical sciences must be interpreted flexibly in research regarding personality seems, upon mature reflection, to be obvious. Being a product of both heredity and environment, and cutting across every aspect of human affairs, personality cannot, in the light of present knowledge, be assessed with the kind of quantitative measuring units commonly utilized in the province of the physical sciences. Since testing is a human contrivance liable to all the subjectivity which this implies, there is, as a number of writers have indicated, no magic in testing per se. This is not to say that scientific measurement is not applicable in the assessment of personality. However, such an approach needs to be flexible and varied and to keep in view that the human personality presumably is "something more" than the sum of all the measurements which can be made regarding it. This something more, for the present at least, calls for caution in the appraisal of personality by means of rating scales, inventories, and projective instruments.

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PART FIVE

Conclusion

13

The Interdisciplinary Study of Personality

IN PREVIOUS chapters we have reviewed the work of scholars in many fields in an effort to discover what these disciplines have contributed to an understanding of the nature of personality. The purpose has been to ascertain what interlocked, common, or complimentary contributions to the "science" of personality have been made by geneticists, psychologists, sociologists, anthropologists, and psychoanalysts. Webster would call this an eclectic approach since it involves "the practice of choosing doctrines from various or diverse systems of thought" in the formation of an acceptable doctrine. The agreement which obtains among the various theories investigated would seem to warrant such a view, even though some of these theories are not entirely compatible, many of them having developed in distinct intellectual climates.

FORCES INFLUENCING PERSONALITY

Certainly one of the conclusions to be drawn from the researches reported is that a multitude of forces affect the development of personality and that each of the areas in which an individual functions is interrelated with each of the other areas. The implication of these interrelations is that the study of personality must cut across many disciplines. The sociologist, the cultural anthropologist, and the psychiatrist, to name only a few, are for separate reasons as much concerned with personality as is the psychologist. To understand the

subject adequately, we need the information which scholars in each of these disciplines can provide. As Karp has said,

The interdisciplinary approach has much to offer by way of clarification and interchange of view points and findings, a process which has in the past been notably obstructed by a confusion of rival terminologies and consequent lack of a common universe of discourse. Such clarification and interchange are the natural products of the interdisciplinary approach, and this the many concrete projects seek to accomplish on different levels and in various forms.¹

Eclectic students seek to organize into a coherent pattern the evidence derived from all these sources.

Although there is considerable disagreement as to what personality is and how it can be studied, the unscientific influences of the past still color much thinking on the subject. The more recent findings of the various physical and social sciences have produced theories and concepts which can be investigated and tested scientifically. It has been found, for example, that describing personality purely in terms of stimulus and response is a somewhat oversimplified procedure. Instruments of measurement have demonstrated the fallibility of rigid standards for the determination of behavior.

The physical sciences have formulated "hypotheses of probability" without dependency on strict "laws" of cause and effect. In general, the social sciences have followed suit and no longer posit rigid mechanical systems designed to describe human behavior. The universality of individuality needs to be remembered in all evaluations of personality. Men are affected in varying degrees by different stimuli, and each individual manifests behavior which is unique. Modern genetics has described the almost infinite number of diversified factors which operate in heredity alone. These scientific findings have documented Goethe's description of "nature's flair for individuality."

PROBLEMS OF PERSONALITY STUDY

The problem of researchers now is to avoid both the mechanistic and dualistic views of the nature of personality. The new approach to scientific psychology and personality makes it possible to formulate more adequate descriptions of human behavior than were possible under a rigid behaviorism. For example, it can be admitted that all

¹ F. B. Karp, "American Social Psychology—1951," *American Journal of Sociology*, 1952, 18:187-193.

the mechanisms of adjustment in motivational theory imply a self-reference and that these mechanisms are not understandable without an adequate concept of the self. The problem thus becomes that of formulating a concept of the self that will provide a comprehensive account of human motivation, be derived or inferred from empirical observation, and be capable of an operational definition as well as verification.²

For the present at least, it is difficult to envision personality as something which can be completely explained by statistical tests on mathematical formulae. As Tyrell has said, "The kind of difficulty that confronts psychology does not arise to anything like the same degree in sciences which deal with the external world. The question which presents itself in psychology is whether any genuine progress can be made towards understanding the mind by using the methods of natural science. . . . The fundamental position from which psychology starts renders the central task of the psychologist an impossibility."³ Such a view reemphasizes the necessity for caution in any quantitative approach to the study of personality. It does not, however, rule out the scientific method for the objectification of sense-data.

RECAPITULATION AND A POINT OF VIEW

PERSONALITY A UNIFIED PROCESS

Hippocrates, it will be remembered, at one time separated the mind from the body, but subsequently joined them in his humoral psychology. His concept of the four temperaments represents an effort to show that the physical features of man are related to those of a psychic nature. The germ of modern psychosomatic theories can be seen in this view. The Middle Ages witnessed an arbitrary separation of mind and body, but the rise of science brought personality back to the body by way of the empiricists' concern with the sensory apparatus. However, the concept of personality as a complex but unified process is a contribution of modern empirical psychology. Although dichotomies are still made in many quarters, usually for the sake of convenience, personality is now generally viewed as a

² C. L. Golightly, "Mind-Body Causation and Correlation," *Philosophy of Science*, 1952, 19:225-227.

³ G. N. M. Tyrell, *Man the Maker*, New York: E. P. Dutton & Co., Inc., 1952, p. 249.

unified process. Psychosomatic medicine has done much to illustrate this unity; bodily symptoms which once defied analysis became understandable and available for therapy when shown to be related to psychological disturbances. Man has come a long way from the days when psychical disorganization was thought to be a product of intangible spirits. It is to be hoped that the concept of personality as a holistic process will lead to further enlightenment in this area.

Surgery on both human and infrahuman beings, primarily surgery of cortical areas of the brain, has shown the intimate relationship of psychological disorganization with organic trauma. Anatomists have shown how certain areas of the brain are related to aspects of the sensory functions (e.g., vision, hearing, movement, etc.). Lashley has advanced the theories of mass action and equipotentiality to account for the fact that animals from which one area of the cortex has been removed can still perform acts learned through that area. While these theories appear to vitiate the notion of a one-to-one correlation of brain area with specific function (and functional disorder), they do not invalidate the concept of the biological foundations of personality. In fact, they would appear to strengthen this concept, since if there were no brain tissue or if death had occurred, functioning would automatically have ceased.

Recent experimentation or phenomena associated with neurological structure has disclosed an organism so finely balanced that the functioning of the body must be considered an organismic process, not as a simple series of actions. It is personality which constitutes the manifestation of such a process and which could not exist without this organic foundation. The study of personality must include a consideration of the physiological base of which it is such an integral part. The human organism responds *in toto*—not in terms of such separate entities as mind and body.

MOTIVATION AND PERSONALITY

Most students of personality now agree that human behavior is goal-oriented. The disturbed individual is seen as one who has been frustrated in his efforts to satisfy certain needs or drives. The psychologically healthy person is the type of individual who has more or less consistently been able to maintain a balance between the tension resulting from frustrated goal-seeking and the fulfillment of his fundamental organic and psychological needs.

Recent studies have demonstrated how important the satisfaction of even the biological needs is for personality adjustment. Living in society quite clearly produces still other impelling motives and drives. Maslow has offered the concept of self-actualization in an effort to account for some of the gaps he sees in the older, better known, and more biologically and environmentally oriented theories of need. Other writers have dealt with this problem in terms of drive and drive reduction. New problems of distinguishing motives have appeared with the increasingly complicated nature of modern societies and their intricate symbolic systems. These symbols (e.g., social status, role, etc.) motivate modern man to a considerable extent and become important determinants of his behavior.

Motives certainly constitute a key to personality formation, and investigations regarding them have brought to light much that was formerly shrouded in mystery. Man's behavior can more easily be understood when seen as resulting from goal seeking and not as a reflection of pure reason. Modern students of personality regard motivation as a frame of reference for research. Since the sources of behavior are to be found in motivation, the investigator's view of personality must in large measure emerge from his conception of the nature of motivation.

THE DYNAMICS OF PERSONALITY

Even Immanuel Kant, the transcendental philosopher and protagonist of pure reason, conceded that thinking begins in experience and is subject to the limitations of the sensory apparatus. Our experiences are highly influenced by our previous learning—by our attitudes, beliefs, and prejudices, all of which are emotionally charged. Whitehead has declared that “. . . the notion of mere knowledge is a high abstraction, and that conscious discrimination itself is a variable factor only present in the more elaborate examples of occasions of experience. *The basis of experience is emotional.*”⁴

THE ENVIRONMENT AND PERSONALITY

The physical, cultural, and social environments all play such an influential part in personality formation that personality cannot be distinguished from that which surrounds it. The most logical posi-

⁴ A. N. Whitehead, *Adventures of Ideas*, New York: The Macmillan Company, 1933, pp. 225-226. Italics ours.

tion is to view personality as the result of interaction between the individual and his surroundings, the two aspects meriting equal attention.

The two institutions in an individual's environment most directly concerned with personality formation are the family and the school. The family is generally thought to be the single most important influence on personality formation regardless of the particular culture. Although its influence has been lessened with the coming of a more urban and mobile style of life, it is still the biological and cultural foundation of society. The "nucleus" of personality might be described as a reflection of the individual's early relations with his family.

Next to the home, the school is the most important influence on child development. Although education continues throughout one's life and is essentially a community affair, it is primarily in the early school years that the particular values of a society are taught, thus making possible the perpetuation of particular types of civilizations. Schools are society's agency for personality formation. It is in the school that the child is taught the values and given the information which society believes it is important for each individual to have. The ways in which the school molds and shapes personality are perhaps more noticeable in America than anywhere else. The fact that second generation Americans often differ so markedly from their parents suggests what a powerful force the school is in the formation and development of personality.

SUMMARY

There is now extant a theory of the nature of personality which was first glimpsed in the temperament theories of the Greeks. The knowledge we now possess in this respect is the product of an immense amount of effort over a very long period of time. Nevertheless many gaps and obstacles to a "closed" theory of personality still remain. It seems evident, however, that the scientific method is our most effective tool for filling in those gaps and sorting out the conflicting hypotheses submitted by scholars in the various areas of knowledge.

In future researches it will be well to bear in mind that the processes of personality formation and development, though they result in a distinctive unity, are integrated. Although individual variation

is the basis of psychological measurement, this uniqueness must be viewed as a result of the total process of personality and should not cause us to lose sight of the patterns of experience which have produced it.

Personality involves the interplay of many factors, all of which must be considered. The noted naturalist Thomas Huxley once wrote that physiologically there are but three categories under which man's activities can be subsumed: (1) the direct maintenance and development of the body, (2) the changing of the relative position of the body to maintain this balance, and (3) the perpetuation of the species. Physiological research has substantially corroborated Huxley's thesis. And psychological research has shown how the various facets of personality are interwoven with these physiological activities. It is an interrelated or unitary process. Adjustment involves the total individual in action, and the nature of this adjustment determines the kind of personality which will be formed in any given case.

The materials presented in this volume have been primarily empirical. There are other approaches which involve the use of more subjective data, but a consideration of these has been left to others. The position taken has been that use of the scientific method and a patterned eclecticism offer the greatest hope for a further understanding of the nature of personality.

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